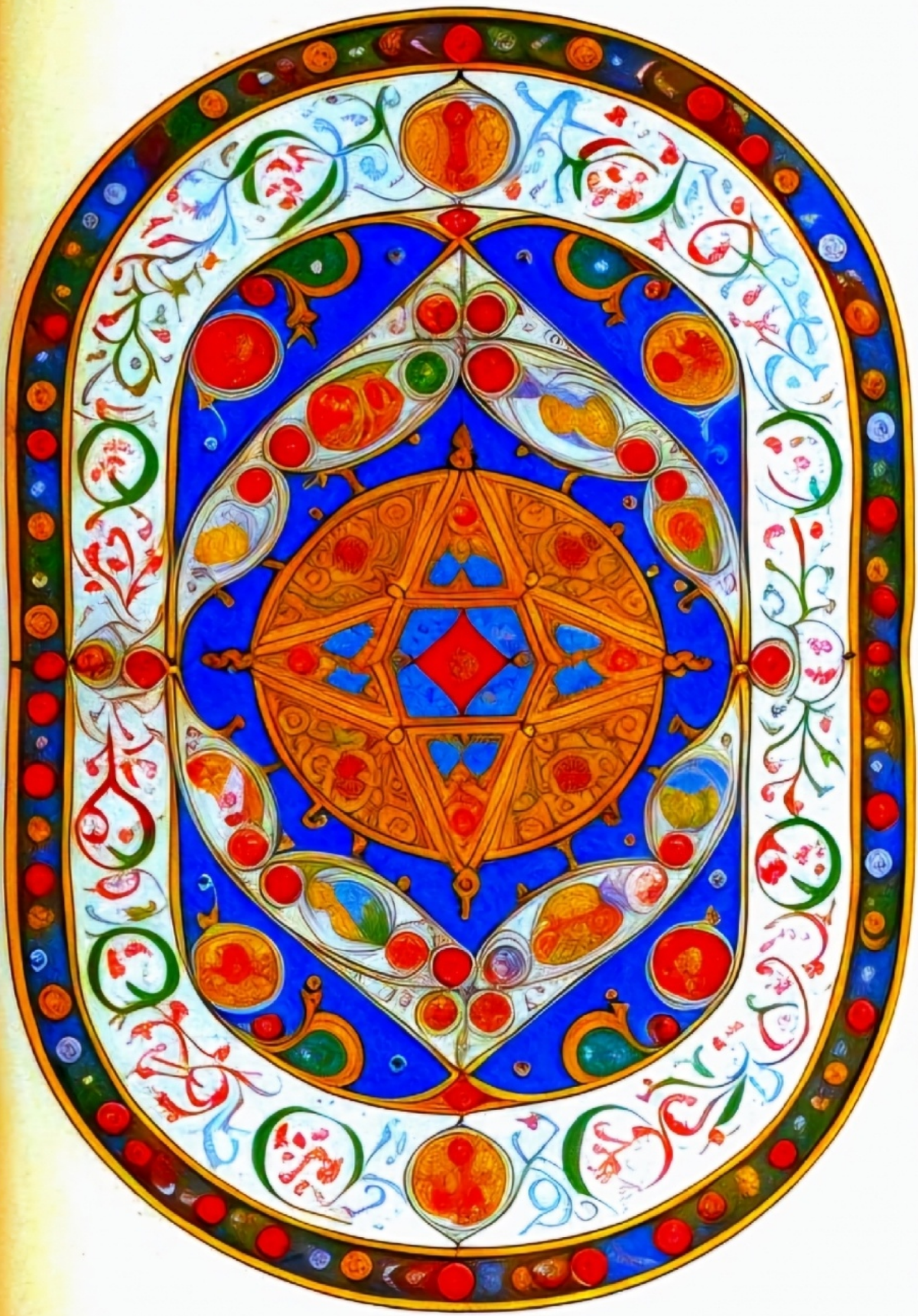


CREATOR AND COSMOS

ILLUSTRATED;

BY

ROBERT SHAW, M.A.,

GRADUATE OF UNION COLLEGE, N.Y., WHO IS UNPREJUDICED TOWARDS ANY SECT OR PARTY AT THE EXPENSE OF THE TRUTH.

AUTHOR OF

"EXISTENCE AND DEITY;" OF A "UNIVERSITY ARITHMETIC;" &C.

Restored into –

– The New Alexandria Library Of Texas –

IN TWO PARTS.

VOL. 2 – (PART 2) – P. 473

PART FIRST.

IN THE ETERNALLY EXISTENT THE EXISTENCES TREATED OF, AS THE TERRESTRIAL (EMBRACING THE WORLD OF MANKIND, OR THE "MORAL WORLD," THE TELLURIC SPECIES, LIGHT, COLORS, ETC) THE UNIVERSAL AND ACTUAL.

REVISED EDITION.

LIBRARY OF CONGRESS COPYRIGHT OFFICE No. 12767 D

ST. LOUIS:
BECKTOLD AND COMPANY,
210 & 212 PINE STREET.
1880.

The New Alexandria Library Of Texas
2025

PART FIRST.

PAGE.

EXISTENCE, Physical, Spiritual, and Moral, illustrated from various sources in the physical and moral world, as from the animal, vegetable, and mineral kingdoms of the earth, the earth itself,—the probable permanency of the Cosmos as to phenomena of forms, changes, &c., being to some extent here demonstrated—and from the civil and religious history and the observation of mankind 9–154

THE CREATOR: Creation, the Earth's elemental conditions of existence, matter and spirit literally defined, etc., 9–51

SOME TERRESTRIAL climatal conditions and peculiarities noticed, as well as illustrations from the noxious and innoxious portions of the animal and vegetable kingdoms 51–60

ILLUSTRATIONS from the character and practices of the races of mankind world-wide, distinctive of the moral world 60–154

FIRST, from the savage and semi-civilized races 60–73

SECOND, illustrations from the nations called civilized from the earliest historic times, especially in their secular or civil aspect 75–115

THIRD, illustrations from the nations called civilized, especially in their religious aspect, and from early times: First, from the history of the Catholic Church of the Roman Empire 115–143

Second, from the history and observation of Protestantism 143–154

OTHER THINGS, which tend to illustrate further (or as far as our finite knowledge can carry us) the probable permanency of the Cosmos or of the order of nature and man in the main as now existing; under which head are illustrations from Natural History, Geology, Antiquarian Research, Biology, or Embryology, &c. 154–211

A CONTEMPLATION of other scenes and objects of nature intended to further enlighten us and to exalt our conceptions of the character of the Deity, under which head is illustrated the infinity of ideas which existed eternally in the Creator's mind from a consideration of the diversified display of created objects in the animal, vegetable, and mineral kingdoms of the earth. 211–236

ON CRYSTALLIZATION, its varieties, &c. 236–242

ON LIGHT, the Prism, the Spectrum, Spectral Analysis, &c. 242–261

The Rainbow 261–267

ON COLORS, and other effects of Light 267–272

Complementary, or Accidental colors 272–281

PAGE.

On Astronomy, preliminary explanations, proofs of the earth's rotundity, diurnal motions; circles, degrees, &c.; the horizon, eclipses, conjunction and opposition, annual motion, phenomena arising from the earth's motion. 281–313
The Sun. 313–320
The Planet Vulcan. 320–321
The Planet Mercury; appearance of the Heavens as viewed from Mercury 321–324
The Planet Venus; appearance of the Heavens as viewed from Venus. 324–330
The Earth, its motions, its magnitude, its celestial phenomena, its siderial and solar day and year, &c. . . 330–338
The Moon; appearance of the Heavens as viewed from the Moon 338–352
The Planet Mars; appearance of the Heavens as viewed from Mars 352–356
The Minor Planets or Asteroids; the Heavens as viewed from the Minor Planets 356–358
The Planet Jupiter and his Satellites; the Heavens as viewed from the Satellites and from Jupiter. 358–364
The Planet Saturn, his Satellites and Rings; some phenomena of the Satellites as viewed from the surface of Saturn, description of the Rings, and scenery of the Heavens as viewed from Saturn, his Satellites and Rings. 364–377
The Planet Uranus and his Satellites; the Heavens as they appear from Uranus 377–381
The Planet Neptune; the Heavens as viewed from Neptune. 381–387
The Attraction of Gravitation explained. 387–389
Kepler the discoverer of the proper motions of Existence and his Laws 389–391
Sir Isaac Newton, the discoverer of the modes of existence and his Deductions 391–395
The Tides explained 395–398
On Comets. 398–406
Shooting Stars; Meteorites. 406–412
The Aurora Borealis, or Northern Lights; the Mariner's Lights 412–414
The Fixed Stars; double Stars; colored and variable Stars — as to the mode of classification of the Stars into magnitudes, &c., as to the motions and position in space of the Sun and the Solar System —temporary Stars. 414–426
Clusters and Nebulæ, variable Nebulæ 426–435
The Nebular Hypothesis. 435–436
Sketch of the History of Astronomy. 436–449
Conclusion of Part First 449–453
Is Science Reconcilable with Religion? 453–472



Class BL225

Book S55

Copyright No. 1880

COPYRIGHT DEPOSIT.

BL225
.S55
1880

REVISED EDITION COPYRIGHTED, 1880.

Entered according to Act of Congress, in the year 1880, by
ROBERT SHAW, M. A.,
In the office of the Librarian of Congress, at Washington.

INTRODUCTION.

THE principal object of this book (although this is not the only purpose it answers, for it conveys to the reader a vast amount of information the most interesting and important) is to simplify as much as possible the subject of the Creator and the Cosmos. To have this done thoroughly and accurately is a work of great magnitude and gravity for the author, of great importance and consequence to the reader, and an accomplishment very much desired and to be desired by all lovers of the truth concerning this most stupendous and interesting of all subjects.

In our day and country the demand for literature is almost all for the lighter, or, comparatively speaking, trashier kinds, and the book got up designedly to please the eye and to satisfy the morbid fancy is the kind of book of which much the greatest number of copies is expected to be sold. Publishers, having some experience of this, rather incline to push the sale of works of the lighter kinds, which will sell on the railroad cars, in the news depots, and in those places of public resort, where works of the heavier kinds do not usually appear; and they are in general more slow than evidently is for their interest and that of the public to push the sale of books on heavier subjects and more profitable for the masses, although they may see in them a great amount of merit and use, and a desideratum the want of which has long been felt by an exceedingly large class of reflecting and thoughtful minds—the class that is not only incomparably the most intelligent but the most respectable and trustworthy as men of moral principle, and that will see fit to stand by a publisher if he honestly and industriously attends to his duties in the prosecution of his business.

Now, I know, by a sufficiently wide experience, that in every community there is a certain number of reflecting and thoughtful minds, a number indeed usually proportionate to the number of inhabitants in the place—and these persons are not at all content unless they know the reasons of things, and have as thorough a knowledge as in their circumstances they can have of the subjects in which they are interested, well knowing that the superiority which arises from education and knowledge, especially when this is joined to rectitude of moral character, is the only true superiority, and that no one, it matters not what or how affluent as to circumstances he may other-

wise be, has a right to regard another as his inferior who is as well educated on the most important subjects, has as thorough a knowledge, and is as good a man morally as he himself. Men are not accustomed to have much respect for those whom they know are much inferior to themselves in education and knowledge; no matter how much material wealth the latter may possess they are likely to undergo the tacit criticism, and estimation in the balance of the cultivated mind, and this very thought should incite those of sober judgment, old and young, to acquire, and as much as possible attain, to that which is the only true index and means of equality with the best.

Nor does our judgment tell us that publishers should neglect the duty and moral obligation of furnishing to that large class aforementioned the books and the knowledge they so much desire, even if this be done at the expense of the publication of many of the lighter kinds of books. The country is overstocked with this latter class of books: it is high time that this fever of morbid mental excitement should be stilled; and that the popular mind should be directed as much as possible to more serious and profitable subjects. To think the being slow to push the sale of a non-partizan or non-sectarian work would assist a publisher in the estimation of any individual or party, who may have their money or other interests wrapped up in sect or system of any kind, would we are persuaded, be a great mistake for a publisher to make. Such men are, for the most part, not at all adverse to a publisher attending to his duties and pushing his business with all his might; nor is it right they should, since a publisher's duties in the way of the circulation of books extends to all classes, and his business is very general; he has therefore a perfect right to push his business independently as others have to push theirs; his right will always, too, be unquestioned; and where he is circulating a much needed and useful book as this present one is, *and that for all classes*, he has really a right to the assistance and sympathy of all good men and women.

The works already in print upon the subject of Christian Theology are, as is well known, for the most part merely systems of ideas elaborated from the mind or imagination of their authors. These latter have been men mostly of European education, trained up in certain modes of thought, and to the unhesitating belief of certain creeds or confessions of faith, and who in their writing took, *every time*, as a basis for their theological arguments, an hypothesis, that is, an assumption without internal examination of the literal truth of the Scriptures, and in this way gave to these records chronologically and otherwise what interpretation they pleased. Men of American education, and of the, as far as possible, positive American

conception are generally not satisfied to pin their faith to the hypothesis, patched up or respectable, of any theorician, they are not content to do it without examination and demonstration of their own, so far as they can attain to this.

Such systems of theology as those referred to have, for long ages before the settlement of America by the whites, stopped the march of progress, and brought about that the masses of the people were in effect the chattels of the learned and ruling classes, who always, we find, made it convenient to join fortunes with each other in the narrow national confines of the old world. If our people see fit to judge for themselves on religious matters our laws afford them the right to do so; and our wide country affords them room to do all the good they possibly can in the development of their principles, provided their education and God-given light has enabled them to do so.

We do not at all dispute but that men of European education and habits of thought have a right, if they wish, to produce theological books, and to weave into them all the kingly and priestly ideas both of ancient and modern caste which they can evolve. "What we intimate is that we have a right also to treat theology in our own way and according to our own simple republican habits of thought; and we doubt not but that our rights as well as our books will be appreciated by men of European education among others, judging partly from the ready sale met with by the second edition of our work, "Existence and Deity."

So far as the Scriptures are treated of in this book, which they are largely in the Second Part, they are not either discarded or perverted, but they are rendered intelligible. The subject of the Creator it treats as that subject really is, namely, as that the Creator is Omnipresent, his character being illustrated by his works of creation; but though Omnipresent the Creator is shown to be Infinite as existence and being Infinite not conceivable by man's mind nor to be seen by his eyes.

Part First treats of Existence in its various conditions, phases, and aspects,—Physical, Spiritual, and Moral,—and illustrates variously the subject of the cosmos and the character of the Omnipresent and Infinite Deity. The Moral and Religious world is illustrated from History, Civil and Religious.

In using the sciences for illustration in this First Part of the work, more especially Astronomy, we found it both necessary and most to the purpose to set forth the science itself with its deductions and discoveries hitherto which will be much more beneficial and satisfactory to the readers than the statement of isolated facts and ideas derived from that science, its deductions and discoveries.

Besides, we have treated of the scenery of the heavens as viewed from the planets and their satellites, a demonstration which is no more vague than are the practical parts in common Astronomy, and which makes the subject as here presented far more interesting than as set forth in the common treatises on that science, and exhibits the power, wisdom, and glory of the Deity as set forth in the scenes of existence in a peculiarly interesting light. The Astronomy, considering the way in which it is treated here, and the labor which has been expended in the demonstration of the scenery of the Heavens, I would consider worth, of itself, the price of the book.

The subject of the Creator,—infinite existence and of creation,—is variously illustrated in Part First. Mystery, the prolific Mother of Superstition, is removed in Part Second; we have endeavored to have the true light shine out on every page, and we trust that they who obtain this book or may obtain it will see the inexcusableness as well as unreasonableness of longer remaining enslaved to error, idolatry, or any other evil practices: all of which we trust they will for their own highest interest and for the honor of their Righteous and Holy God henceforth discard and eschew.

To such as might be disposed to look upon this book with an eye of criticism, as those only competent by learning could be supposed to do, we may remark that the work consisting of two parts is one of design, neither part being complete without the other, and that it is better to read the whole through carefully in order that the subject may be as fully as possible understood. We think however, it would be better to read it with a sober, and, in most parts, with a prayerful spirit rather than in the spirit of criticism and captiousness and thus to profit by the information it may afford.

It will be well to remember that in the mathematical parts of this volume the English system of Notation is followed, which, where large numbers are dealt with, is considered to have more power than the French system. The latter system is the one generally followed in this country, and which the author has followed in his Arithmetic.

The Revision.

The revision of this First Part of "Creator and Cosmos" has been executed with care and thoroughness, and with the intention that it shall serve as a reliable book of reference both as to facts and figures.

CREATOR AND COSMOS.

PART I.

EXISTENCE PHYSICAL, SPIRITUAL AND MORAL ILLUSTRATED FROM VARIOUS SOURCES IN THE PHYSICAL AND MORAL WORLD, AS FROM THE ANIMAL, VEGETABLE AND MINERAL KINGDOMS OF THE EARTH—THE EARTH ITSELF—THE PROBABLE PERMANENCY OF THE COSMOS BEING TO SOME EXTENT HERE ILLUSTRATED—AND FROM THE CIVIL AND RELIGIOUS HISTORY AND THE OBSERVATION OF MANKIND.

The Creator: Creation, the Earth's elemental conditions of existence, Matter and Spirit literally defined, etc.

WHEN we speak of the CREATOR we mean that Being whose presence is everywhere, who has created all things that have been created in the physical universe, and in whom we live and move. When we speak of the Creator being everywhere present, which means in every conceivable or inconceivable place in the universe, we do not mean to say that He is visible to the eye or can be conceived by the mind of man.* The Creator is infinite, and an Infinite Being cannot be conceived by the mind, much less seen by the eye of sense. True, we see creation around us, but we are to remember that creation stands in the same relation to the Creator as the effect does to the cause which produces it. And we shall show further on, how that we could not distinguish one object from another were it not for the intervention of the colors of light; and we are aware we could not see anything at all were it not for light itself. Also, when we speak of the Creator being infinite, and everywhere present, we mean that there exists but one such Being, for more than one Omnipresent Being there cannot be. But, though the Creator cannot be seen by the eye nor conceived by the mind, yet since His agency pro-

* In our conceptions concerning the Creator we cannot conceive of him as anything, although He is present, everywhere, in the earth and in ourselves, creating in us to will and to do of His good pleasure. Being infinite, He is not conceivable as any object or thing, but of His character we have a limited conception, from the endless diversity of His creations and operations in the physical and moral world.

duces all the effects that are produced in the natural world, His character may be understood and appreciated from a consideration of His works, just as the character of an artificer can be judged of from a consideration of the work he executes, or the strength of an animal from the power it exerts.

By CREATION we mean the effects produced by the omnipresent and everacting CAUSE for and in the universe.* The effects we have principally to illustrate in this connection are of two kinds: *first*, that unceasing change we see ordinarily taking place in nature by growth and decay, also termed transformation of matter; and, *secondly*, change of place by motion, as that of the earth in its journey round the sun. The first kind of change, or transformation of matter, according to the ordinary operations of nature, is that only which we denominate creation, being effected by the Creator; the second kind of change, or change of place by motion, although effected by the Creator, yet is not creation, since it effects no transformation of matter, but only a presentation of the same thing in a different place, or after a certain period in the same place again. Change of place by motion will be fully illustrated when we come to speak on astronomy. There are yet other kinds of change which pertain especially to man as a free, intelligent actor, and which we shall also illustrate in their proper place, when speaking of the moral world, or that world which exists with special reference to man.

CHANGE, by transformation of matter, may be illustrated from numberless sources by ordinary observation. Thus, a flower which begins to grow in the spring, and blooms in the summer, since it did not exist before, is a creation. The species of vegetable to which the flower belongs had before existed; the seed from which the flower sprung had previously existed; the flower is the effect of change of matter; it had not existed before as a flower; it is created. And it may be here observed that no change or combination of matter could produce that flower, or any other particular plant, except the seed of that flower or plant existed before to give it birth. Take, for illustration of the property of seeds, the grain of wheat; it puts forth the blade in the Fall or Spring, which gradually grows till it comes to maturity as a full ear in the Autumn. This ear of corn did not exist before; the species of vegetable to which it belongs existed before; the kernel in which it was germinated and which gave it birth previously existed; (and we may remark in passing that the young

* This general idea of creation refers to all the objects created on and in the earth, on and in each of the heavenly bodies, or in any part of space, as well as to the earth and each of the heavenly bodies themselves, inasmuch as they, analogously to the human body while living, are continually and wholly subject to change, and are in this sense objects of creation.

as to its primal essence exists in the seed, and that the process of sprouting takes place in the seed itself, independently of the aid of the earth, as may be observed in the case of barley or other grain sprouting when moistened and subjected to heat for some time in the process of malting); this ear of wheat, we say, since itself did not exist before, is a creation. The seed, therefore, must exist before the plant, and every seeds brings forth after its own kind. If a seed of wheat is sown an ear of wheat will result from it, if anything do result, and not an ear of rye or of any other species of grain; and an oak tree is sure to result, if anything do grow, from the acorn.

This property of seeds is true of all animals as well as plants. When a child is born, or the young of any animal is brought forth, it is a creation. This organized being has not before existed, though its substance and life have never not existed. When the trunk of a fallen tree or the body of a dead animal becomes mineralized or petrified, this mineral or petrifaction is a creation, the component parts of the original form combining with certain other elementary substances, a new form or species of being is produced.

Also, if it be understood that the matter of the earth assumed or was given its present form, from its having previously existed in another form, say in an æriform or nebular state, then that change of the matter into the form of the earth would be properly termed a creation, although such a creation, we may say, can be spoken of only hypothetically.*

It is seen that on the surface of the earth, and for a short distance below it, all things are continually changing; one form of matter is continually taking the place of another in existences animate and inanimate. Animal and vegetable remains are changed into clay, and rocks, and water; and these again enter into the production and support, and compose the solid frame-work of the organic structures of vegetables and animals. When the living or animate body dies it does not cease to exist, for there is no such thing as annihilation. True, if it be a human being that dies, that human being ceases to exist as an organized conscious agent, but the body retains the principle of life, which descends with it to the tomb. Death is only a sleep or a state of unconsciousness of the body previous to its change into other organic or inorganic existences. Thus, the chrysalis state of the caterpillar, in which that creature remains to all appearance dead, has been often and aptly compared to the state of the dead of the human race. But what happens to the caterpillar? At the end of a month he comes forth from his tomb having gorgeously tinted wings, and soars on high, a beautiful butterfly. We have yet to learn whether in his new and

* A primal creation of matter and space, of forms and motions, of vegetables and animals, &c., is generally and tacitly granted to theology. It is "by faith" St. Paul accepts it. Heb. xi., 3. We discuss rather the actual creation, effected by and through "Him in whom we live and move."

exalted state of existence he remembers his former humble condition of a caterpillar. We may, however, presume that he does not.

The animate body dies because some one or some of its organs or faculties cease to perform their ordinary functions, just as a mill ceases to operate when a wheel or a cog is broken, or any of the internal machinery is deranged or out of gear. And, as the mill ceases to operate when deprived of sufficient motive power, as wind, water or steam, so does a human being die when he has not a sufficiency of air to breathe, of water to drink, or of food to eat. A man will also die if he have only a limited quantity of air to breathe, and this impregnated with noxious gases, as was the case with that great number that perished from suffocation in the "Black Hole of Calcutta" in 1756, and is the case with hundreds who are suffocated in coal mines, in our own time.

The wind-mill, when in working order, depends upon the same agencies to enable it to operate as a man does who has a sound constitution; they both depend upon the atmosphere; and reason, assisted by the atmospheric agent, directs the operations of the mill in both cases. In like manner a water-mill depends upon the same agency to enable it to operate as a man does, both, as before, being supposed sound in their internal machinery, depend upon a sufficiency of water being furnished them; if this be not in sufficient quantity to turn the large water-wheel, the mill ceases to grind; and if there be not a sufficient quantity of water for the requirements of the animal system, or if, as in the case of noxious air, the quantity that is in supply be deleterious, the man's body consumes and he dies. Here we may remark that water enters largely not only into the support, but into the constitution of the human body, seventy-five per cent. of all the fleshy parts being water.

Also the steam-mill is analogous to the human body, both being sound in their internal parts, depending upon a sufficient quantity of steam being generated to enable them to perform their functions. The body, as the mill, has a furnace, the stomach, to which a sufficient amount of fuel, food, needs to be supplied, in order to keep up a sufficient degree of heat to sustain the combustion and decomposition which are continually going on in it; for by combustion and decomposition in the body there is a continual decay and waste of animal tissue, which decay and waste must be as constantly supplied by the intra-generation of new chemical compounds. The human body, therefore, is truly a kind of laboratory in which a chemical process is continually taking place, of decomposition or decay, of recomposition for the supply of animal tissue; and, as it is said that no two persons see the same rainbow, so it may, with equal truth,

be said that no human being has exactly the same body two days in succession.

And the human body is further, as is plainly perceived, analogous to the steam-mill, having its furnace, boilers, and complex machinery for generating heat and steam; for heat has to be generated in the body, and consequently steam in order that its functions may continue to be performed. In breathing out of doors on a cold frosty morning, one can see from the condensation of his breath as compared with the surrounding air at every exhalation, what an amount of steam one generates.

If the human body, therefore, as has been shown, is in every part continually undergoing change during life, is it any wonder or any ground of apprehension that there shall be a more radical and permanent change effected in it by death; a change from which a new and nobler creation may arise? Death, as we have before intimated, is only a loss of consciousness, and a cessation of action in the intellectual and sentient being. It is not a loss of life, for the body retains in every part the principle of life; it is not a loss of existence, for not a particle of the human system ceases to exist, but it is a change which the body must needs undergo previous to its being created anew into other forms of existence.

THERE IS NO DEATH.

There is no death! The stars go down
To rise upon some fairer shore,
And bright in heaven's jewelled crown
They shine for evermore.

There is no death! The dust we tread
Shall change beneath the summer showers,
To golden grain or mellow fruit,
Or rainbow-tinted flowers.

The granite rocks disorganize,
And feed the hungry moss they bear;
The forest leaves drink daily life
From out the viewless air.

There is no death! The leaves may fall,
And flowers may fade and pass away—
They only wait through wintry hours
The coming of May day.

There is no death! An angel form
Walks o'er the earth with silent tread,
And bears our best loved things away,
And then we call them "dead!"

He leaves our hearts all desolate;
He plucks our fairest, sweetest flowers;
Transplanted into bliss they now
Adorn immortal bowers.

The birdlike voice, whose joyous tones
Made glad these scenes of sin and strife,

Sings now an everlasting song
Around the tree of life.

Whene'er he sees a smile too bright,
Or heart too pure for taint and vice,
He bears it to the world of light
To dwell in paradise.

Born to that undying life,
They leave us but to come again;
With joy we welcomed them the same,
Except their sin and pain.

And ever near us, though unseen,
The dear, immortal spirits tread;
For all the boundless universe
Is life—there is no death!*

The principle of life is inherent in all matter and in every particle of it; and in this part of our discourse it may be well for us to state that there is nothing but matter to be considered. The life seems latent in rocks, earths, minerals, and such like, but a microscopic inspection of them will show that it is not entirely so. Every part of matter, even the solid rocks, the earth, the waters and the air, when examined with a microscope, is found to teem with living and sensitive existence. This instrument discovers to view myriads of little animals in a drop of stagnant water, some of them so minute that when viewed with a glass which magnifies one hundred thousand times, they severally do not appear larger than a visible point. And yet each one of these is a distinct being. If a microscope of high magnifying power be directed to the atmosphere on a calm, clear day in summer, shoals of animalcules may be seen in its undulations. But according to our statement above, the existence of life in matter does not depend upon its containing organized, sensitive beings, and the fact of its existence there may be illustrated by many and potent considerations.

All vegetables derive their nourishment from the earth assisted by the atmosphere and the sun. From these, animals derive their nourishment. It is true that the earth cannot bring forth vegetables or animals spontaneously; if it did, then we might say that they derived their existence *immediately* from the earth; these must spring from their peculiar seeds; but having been originated in that way, the earth and its accompaniments, the atmosphere and the sun, afford them increase of life and nourishment, which if matter did not contain it could not impart. All vegetables and their seeds return to the earth whence they sprung, bringing their principles of life and vegetation with them, and become earthy matter. Also the bodies of all animals return to the earth, bringing their principles of life and generation with them, and become part of the earth. These

* Lytton.

† Further on the converse of this is shown, or that nothing exists in the universe but spirit. Having progressed far enough the reader will be able to judge whether the resultant be positive or negative, or both.

very principles of vegetation, generation, and life, again enter into the production and support of other living beings, animate and inanimate. It is, therefore, seen that the same principle of life which exists in all living beings, animate and inanimate, exists in the earth, the atmosphere and the sun.

And not only is the principle of life inherent in all matter but also that of intelligence. This principle is perceived, as it were, in its germ in the lowest orders of animals, and is brought to a fair degree of perfection in highly civilized and cultivated man. Between these two extremes there exist different grades and degrees of intelligence, but the fact of the existence of this principle in all animate beings is certain, and it needs only to be educed in order that it becomes apparent. But how is it to be educed in the case of the lowest orders of animals, microscopic animalcules? It need not necessarily be educed in their case, for they naturally exhibit it unmistakably to observation. The following extract from Mr. Baker, a celebrated naturalist, in his description of the hair-like animalcules, will help to illustrate this :—"A small quantity of the matter containing these animalcules having been put in a jar of water, it so happened that one part went down immediately to the bottom while the other continued floating on the top. When things had remained for some time in this condition each of these swarms of animalcules began to grow weary of its situation, and had a mind to change its quarters. Both armies, therefore, set out at the same time, the one proceeding upward, the other downward, so that after some time they met in the middle. A desire of knowing how they would behave on this occasion engaged the observer to watch them carefully, and, to his great surprise, he saw the army that was marching upward open to the right and left to make room for those that were descending. Thus, without confusion or intermixture, each held on its way; the army that was ascending marching in two columns to the top, and the other proceeding in one column to the bottom, as if each had been under the direction of wise leaders." Here we have unmistakable evidence of voluntary motion and of a considerable degree of intelligence in these exceedingly minute animals.

The ancient Romans appear to have been aware of the inherent existence of the principle of intelligence from their use of the word *educare*, to educate, which means to draw out or develop that which already exists in principle within.* Many of the inferior animals,

* Locke, in whose Essay there is much commendable, appears shallow in his argument against "innate ideas," and refutes himself partly in his confession of the Existence of God and of intelligent invisible spirits. First, we cannot conceive of man, as such, devoid of the "Senses;" secondly, the infinite and omnipresent Being is *independent*, and the source of all knowledge. He knows infinitely more than man can possibly conceive, and can cause ideas to spring up in the mind.

when taught, display a remarkable degree of sagacity, and, although we need not necessarily believe what Cicero says as to Orpheus taming the wild beasts of the forest by playing to them on his lyre, yet we now-a-days have abundant experience of what the domesticated animals, such as horses and dogs, and many of the wild animals, such as lions and tigers, can be taught to do. As the rough, unshapen block of granite or marble from the quarry may be formed into the stately and beautiful sculpture, so resembling the living and animate being as to deceive us if not assisted by the sense of touch; as the rough block of iron ore may, by being put through a certain process of fusing, hardening, malling, etc., be reduced to the form of the sharp edged instrument, the sword, the knife, or the razor; as the telescope, which so wonderfully opens up to us the distant regions of the universe, and enables us to contemplate far distant worlds, as if they were nigh; and the microscope which enables us to investigate the races of animated beings, invisible to the naked eye, which exist in the earth, in the air, and in all matter, are made chiefly of such earthy substance, as sand and ashes—even so may the intelligence of all the inferior animals which are capable of being taught be brought to a much higher degree of development than that which it has yet attained;—even so may the intelligence of uncivilized human beings be brought to that state of development to which civilized man has already attained; and that of civilized man be brought to a degree indefinitely higher than that which we know of man to have yet attained. It is an old saying, and generally a true one, that what is in will come out; but it is more positively true that what is not in cannot come out; therefore, if the principles of life or intelligence were not inherent in matter there could be no life or intelligence developed from matter; but, since life and intelligence do exist and are developed amid such complex and multiplex changes of matter, it is plain that the principles of life and intelligence do exist, though in different degrees, in all matter, and that in proper circumstances they become apparent, and by proper development they become more apparent; but that the fact of their non-apparency in certain states and conditions of matter to an intelligent being does not alter the fact of their existence there in a latent state.

Uneducated persons are apt to suppose that the air they breathe is the principle of life; some, that it is the soul. This seems,to have been the conception of it entertained by the ancient Hebrews; for the Nephesh Hayya of the book of Genesis is translated into our language the "breath of life" or the "soul of life," but the truth is, the air only helps to sustain the animate being in life; it performs its part in supporting life, as food, the production of the earth, and

water,—which two elements are quite as necessary for animal support,—perform theirs. Air is the element which terrestrial animals breathe by means of lungs, just as water is the element which aquatic animals breathe by means of gills; alter the condition of these two great classes of animate beings and they could not exist as animals; submerge a land animal in water and it will very soon be suffocated; elevate a marine animal to the land, and he will as soon die. All these animals are produced by their kind, but, having been introduced to the world, they are supported by the elements to which they are naturally adapted. Not less than all these elements are necessary for their sustenance. The various tribes of aquatic animals are supported by different kinds of food which they find in the waters and on the bottom of the ocean, lakes and rivers, on rocks, etc. Many of these tribes, which correspond to the carnivorous species of the land, subsist by preying on other tribes; but water is the element in which they all live, which they breathe, and from which mainly they derive their support,—for sea animals do not depend for support upon the land, their own realm supplying all their wants. We may remark here that a very small quantity of air pervades all water and a small quantity of water in the condition of vapor pervades the atmosphere; and both these elements seem mutually to assist each other in the support of living beings, and to be adapted to each other's co-existence.

A man or any land animal may be in the enjoyment of an abundance of pure air and wholesome food, but if he have not a sufficient supply of water for his animal wants, he will die. Also, he may have an abundance of pure air and water, and, if he have not a sufficient supply of wholesome food, he will die. And, further, he may be furnished with a plenary abundance of both wholesome food and water, and, if he have not a copious supply of pure atmospheric air, he will languish and die. All these are indispensably necessary for his animal existence; but, with all these, his life would still be a peculiarly wretched one, if he could at all be supposed to exist, without the light of the sun. If the sun never shone upon our terrestrial sphere, the earth would be a dark, desolate wilderness; no vegetables could grow on it, and no animals now existing on its surface could live on it. Solar light and heat are necessary to the existence and growth of vegetables, and the vegetable kingdom, together with air and water, are necessary to the support of animal life. And can any one now say to which he is most indebted for the necessaries and comforts of life,—whether to the products of the earth, to the air, the water, or the solar light and heat? Can any one now tell to which of these he owes most, or whether he is

a debtor to any one or all of them? They all, it is seen, are mutually necessary for the support and existence of man. The answer will doubtless be that they are all necessary and good; that this world is admirably constituted for the maintenance and accommodation of animate and intellectual beings; that, in short, if the means and privileges which this world affords were rightly distributed among mankind, and used without abuse, our earth would be a terrestrial paradise, worthy the name of heaven below; all would be happiness and peace among men; no one would covet or wrongfully seek what did not belong to him; each would be equally interested for the good of others as for his own; but, since no one is responsible for having been born into the world, one should not consider one's self peculiarly indebted to it for the gifts and privileges it affords him, provided he has obtained and uses them aright.

It will be seen that the principles of life and intelligence are inherent in all matter not only from the preceding illustrations but from those that follow. In the processes of change earth becomes rocks and minerals, and rocks and minerals become again crumbled into earth. The earth produces the vegetables, from their seeds, vegetables become incorporated in animals from being their food, and animal and vegetable substances become incorporated in man from being his food. The vegetable and animal substances are earthy matter, including common clay, mineral, and metal, now temporarily in different states from that in which they exist in the solid earthy substances. But these animal and vegetable substances are continually undergoing change, and destined soon to return to the earth again, where they will still be undergoing change; and one animal or vegetable body, say for example the body of any animal whatever, or a tree, when deposited in the earth, may give birth to thousands, yea, tens of millions of living beings; and these countless beings ceasing to exist in their turn, their substances become earthy, which may give birth to other living beings, or go to the production and support of plants and animals.

But vegetables and animals do not consist altogether of earthy matter, properly so called; the largest part of their substance is made up of water, another species of matter; and also the atmosphere, light and heat, enter into their production and substance. But water, as we have intimated, is a material substance, and so is the atmosphere; and light as well as heat is an everywhere present element, even in the dark and in the cold, only requiring the action of certain material agencies, or rather that matter be in certain conditions, in order that we become sensible of their presence. Light and heat are merely phenomena or effects attendant upon cer-

tain states or conditions of matter. All existence, therefore, is material, and nothing exists but what is of matter.* Others may substitute another name for it instead of matter, if they conceive of a more suitable one, as the names of all objects are arbitrarily given. The animal body is precisely of the same material as are the mediæ in which it exists. The intelligent rational being is conscious that his system is made up of such like materials as earth, rocks, minerals metals, water, air, light and heat; and it may perhaps be said, all circumstances being considered, that man is an epitome (here we will say) of material existence.

To illustrate that the air is a material substance such things as the following might be considered: when a person runs against the wind he feels a force pressing him backwards, and the faster he runs the more is he sensible of its resistance. Though he is unable to see anything around him, yet he is sensible that something exists to press him back, for he experiences its effects. But a better illustration of its materiality is the following: that it excludes all other bodies from the space it occupies. Thus, if over a cork, floating on a vessel full of water, we invert a glass jar having a wide mouth, it will be seen that but a very small quantity of water can get into the jar, because the air of which the jar is full keeps the water out; otherwise if it were emptied of every material substance, the water would rush in and completely fill the jar. The cork, still floating on the surface, will show how far the water rises in the jar. On this principle the diver's bell has been constructed, an instrument in the shape of a bell, the use of which enables men to walk about on the bottom of the sea with as much safety as upon the land. The head of the diver being within this bell-shaped instrument, which comes down in ordinary cases nearly to his shoulders, is separated from the water, for the water cannot enter the bell except for a very short distance while the bell is filled with air. Fresh air is constantly supplied to the diver by means of an air-pump, situated on the land or on the deck of a vessel, and a tube which connects it with the diver's bell. In most cases there is a large diver's bell in which the divers descend, which connects directly with the air-pump by a tube, and in which a supply of air is kept for the divers, who have during their submarine explorations the small bells which they use connected by a tube with the reservoir of air in the large bell. Such an arrangement is necessary, for if air were not supplied the diver in sufficient quantity he could not remain below for any length of time, as the air contained in the bell which he uses becoming very

* Excepting we conceive of pure space abstracting all idea of matter.

dense by the pressure of the water and vitiated by his own breathing would become poisonous, and he would die.

And again, if we take a pair of common bellows, and, after having opened them, if we shut up the nozzle and valve-hole, and try to bring the boards together again we shall find it impossible. There is something included which prevents the bellows from coming together in the same manner as if it were filled with flax or wool; but on opening the nozzle we can easily shut them by expelling this something from within, which will issue with considerable force, and impel anything that lies in its way. This something is atmospheric air.

Also, air is not only material but wonderfully expansive and elastic. Thus, if a bottle, being put under the receiver of an air pump, is entirely emptied of its air, and in this condition being tightly corked is again introduced to the receiver, when the air is admitted to the receiver the bottle will be broken to pieces by the pressure of the air upon its outside, since there is nothing within the bottle to resist its pressure. Also, if a bottle full of air, and hermetically sealed, be put in the exhausted receiver of an air-pump, the air within the bottle expands, and, there being nothing on the outside of the bottle to resist its outward pressure, breaks the bottle to pieces. All which shows that air is a material substance and capable of expansion when in a vacuum or rarer medium. And that it is susceptible of compression when acted upon by a denser body is proved by the fact of the water having ascended a short distance in the jar and the diver's bell, although they were full of air; for no water could have entered them if the air they contained were as dense as the water. Air is so elastic that a quantity of it, as it exists at the earth's surface, can be expanded into nearly fourteen thousand times its original bulk; and the fact that it is elastic shows it also to be compressible, for whatever is elastic is capable of being compressed into a smaller space. Air is capable of being compressed into a small space compared with that which it naturally possesses.

There can be no difficulty, we think, in any one conceiving how that water is a material substance. Like air it is capable of great expansion. A cubic inch of water, when reduced to steam, occupies a cubic foot or over seventeen hundred times its original bulk. But it is with difficulty that water can be compressed into a space less than that which it naturally occupies. It is one of the first principles of natural science, that no two bodies can be made to occupy the same space at the same time; therefore, air is a body and so is water, just as much material bodies as stone or iron is. Fill a vessel full of water, and immerse in it any convenient solid, and a quantity of water will flow out of the vessel, exactly in proportion to the

bulk of the body immersed. When a vacuum or empty space is made by the removal of any body, solid or fluid, the air rushes in from all sides instantaneously to fill up the vacuum, just as water rushes in from all sides to fill up the vacuum which is made by the taking of a pail of water from a reservoir, and as the vacuum which is made by the rolling of a wave on the surface of the ocean is instantly filled up by another wave rolling into its place, which undulatory activity is continued until the air becomes calm and the water level. The partial vacuum which is made at any place on the earth's surface by the expansion of the air by heat is instantly filled by the denser air from all sides rushing in to effect equilibrium. Such is the way in which winds are caused; the air at certain parts of the earth becoming rarified by heat, the denser air from other parts comes in rapid motion to fill up the partial vacuum thus made. Thus, we have, during a great part of the year, strong north-east and south-west winds, which are caused by the colder and denser air of the north and south polar regions coming in rapid motion to fill up the partial vacua which have been caused by the rarefaction of the air by heat in the equatorial regions. A vacuum is a place from which all the air has been withdrawn; a partial vacuum a place from which part of the air has been taken. A vacuum cannot exist in the universe except it be an artificial one, such as that in the upper end of a barometer, called the Toricellian vacuum, from Toricelli, the inventor of that instrument, which is considered the most perfect vacuum, and that in the exhausted receiver of an air pump

All the spaces intervening between the heavenly bodies are occupied with air of a greater or less density. In some places it is dense, as at the surface of the earth, where, as we have said before, a quantity of it can be expanded into fourteen thousand times its original bulk; and in some places it is rare, as on the tops of high mountains and in the upper regions of our atmosphere. In the spaces intermediate of the heavenly bodies it is reduced to an exceedingly thin fluid called ether; but in no place is it wanting in sufficient weight and density to counterbalance its surrounding elements, for all existing things are naturally in equilibrium, and when there is any disturbance, as by a vacuum, they tend to equilibrium.

Thus, the atmosphere within the sphere of the earth's attraction is attracted to the earth's surface, and revolves with it round the sun, just as all the other bodies on the earth's surface are drawn towards its centre, and revolve with it in its diurnal and annual journey. The atmosphere, which is beyond the sphere of the earth's attraction, is either attracted by others of the heavenly bodies within whose spheres

of attraction it lies, or it exists in the intermediate spaces in the form of ether, where it is not subject to any sensible attraction from any of the heavenly spheres.

The atmosphere which surrounds the earth is analogous to the ocean of water which covers three-fourths of its surface; which atmospheric ocean, as the ocean of water, revolves with the earth, and in the bottom of which, we, with the beasts and birds, exist, as do the aquatic animals, in their own element.

The expansibility of the air and water by heat is exceedingly great; and not only these fluids but the densest and solidest substances, such as rocks and iron, gold, platina, and iridium, the densest and heaviest metals with which man is acquainted, can be reduced to a gaseous or aëriform state by the application of sufficient heat. Heat has the power of penetrating all bodies, and the greater the amount of heat enters any body the more the body will be expanded. Thus, a certain degree of heat will reduce ice to water, and a certain additional amount will reduce the water to steam, which is an invisible gas. Fill a bladder about half full with air and bring it close to the fire, and the heat entering the bladder will expand the air until it bursts the bladder. Fill the bladder about quarter full or put a still less amount of air in it, and leave it for a sufficient length of time before the fire, and the air will expand as before and burst the bladder. A like result also would happen to aëronauts if they should be carried so far from the surface of the earth as that the air in their bodies would be much denser than that by which they were surrounded; the air inside their bodies would expand, seeking equilibrium, and burst their bodies. Yet this will scarcely ever happen, we think, for the hydrogen gas with which balloons are filled, though lighter than the air at the earth's surface and for some miles above it, will not ever suffer the balloon to ascend into a very rare medium. The air contained in an apple can be expanded by heat to such a degree as that it will fill a space more than forty-eight times the dimensions of the apple. Take an iron bar whose end when cold fits exactly into a hole, and when you have heated it red hot you will find it too large to enter the hole. Heat it more intensely and you will reduce, it to the state of a fluid, and apply a sufficient additional heat and you will reduce the iron to the state of a gas. You may take a similar process with gold or platina, iridium or any other solid substance in the earth,* and attain the same result. This process of the reduction of solids to gases applies to all bodies in the earth; they are all ultimately reducible to a gaseous or aëriform state

* See, for example, "Comstock's Chemistry," or almost any other treatise on Chemistry as to this. Also, see Cassell's "Popular Educator," vol. ii. page 1.

by the application of sufficient heat. It is therefore theoretically though not practically true that the whole earth is of a substance reducible to the form of gas or air. If it were practically true, which does not appear to be the case, we might not be sorry if there should be a residuum after the reduction of our sphere to an aëriform state, which we, had we the good fortune of being removed to other scenes of existence, might use as material for making telescopes and microscopes to open up to our view the still distant regions of the universe. But gas means air, and air means spirit, and spirit means breath or that which we breathe; the whole earth, therefore, on which we dwell, with all that is connected with it, is spirit in a condensed form. In fact all the heavenly spheres, as we shall make plain hereafter, are of the same character, namely, condensed spirit, and the greater the amount of spirit condensed in a given sphere the greater is its power of attraction, just as the greater and stronger the mind of a man is, provided he uses it aright, the greater is his power to govern the minds of others.

There is a natural constitution and order of things in general, a state in which they tend to remain if not acted on by forces external to nature, none of which we conceive or by the art of man. Thus, the atmosphere will remain in its natural or normal state, and so will the sea and the solid land, if not operated on artificially by man. The extent of his operations on these elements is, however, very limited. He may reduce water and some solid substances to air, and he may reduce air, as carbonic acid gas, to a solid form; but all these will ultimately return to their natural condition, and the general condition of the atmosphere, the waters and the earth, will remain the same, notwithstanding all the change which man can effect in them. When therefore things are altered from their natural state by man's art, the process may be explained upon the principles of excess and deficiency of spirit. For example, water in its natural state occupies a given space, but being reduced to the form of a gas, or steam, it occupies a much greater space. But how has this great expansion been effected? By the penetration into the substance of the water of an additional substance called heat,* which expands it or assimilates it to itself; for although heat, as light and electricity, is an everywhere present substance, yet in its objective action it has to proceed from certain centres. The water in its natural state has its proper amount of heat, but when reduced to an aëriform state it has heat in excess.

* This penetration and expansion may not necessarily be interpreted to mean that any, the smallest amount of substance from without itself enters the body that is heated; but it does mean that the ultimate elements of the body have been set in motion by impulse of body from without; and it is easily understood that the elements in motion moving upon each other take up more space than at rest, and thus expansion.

And conversely, when iron or any other solid is subjected to intense cold it contracts, because of the abstraction of some of its normal heat by the surrounding elements; in this state it possesses heat in deficiency of its natural amount. All substances are expanded by heat, and all substances except water are contracted by cold. Water expands by freezing about one-seventh of its natural bulk, because the particles of the water crystallize, and the polyhedral crystals, we know, take up more room than the globular particles of the water in its natural state. Every one knows how his body and limbs swell, how his veins puff out, when he is much heated by severe exercise. One may also observe how his body and limbs contract, how the veins disappear, and how lank and meagre he is in comparison, when he is subjected to severe cold. In the one case he has heat in excess of his natural amount, in the other he has it in deficiency.

But things as naturally constituted may also be explained on the same principal of excess and deficiency of spirit, only by way of comparison. The air, the waters, and the earth, tend as we have before said, to remain in their natural state. The more solid or dense a body is, the more matter or spirit, which here means the same thing, does it contain. The solid earth, then, with its internal contents, minerals and metals, is evidently denser than water, and water is evidently denser than the atmosphere, and the atmosphere which surrounds the earth is denser than the ether which lies in the spaces intermediate of the heavenly bodies. The globe of the earth, therefore, land and water, in the given space which it occupies, comprises much more matter than the atmosphere does in the space which it occupies as compared with that occupied by the earth; and the earth's atmosphere may be said to comprise more matter than does the ether in any part of the universe, taking space for space. Thus, the solid parts of the earth may be said by comparison to have matter in excess of the fluid parts, taking equal spaces, and the waters to have matter in excess of the atmosphere, taking equal spaces; and the atmosphere to have matter in excess of the ether, taking equal spaces. And, conversely, the ether may be said, in like manner, to have matter in deficiency of the atmosphere, the atmosphere in deficiency of the waters, and the waters in deficiency of the solid parts of the earth. The earth, therefore, is the great concentration of spirit to which all things else tend that are within the range of its attraction. It is denser towards and at its centre than near or on its surface, and all things on its surface and its atmosphere are attracted towards its centre. And it contains in itself that power by which it moves, but it is confined to a certain course by the attraction of a weightier body, the sun, or other heavenly bodies.

The same power of penetration belongs to electricity and light as to heat. Light, heat, and electricity are all the same substance, under different modes of action and manifestation, or, rather, we may call electricity the element of which light and heat are peculiar phenomena, or modes of action. They are always found together when means are employed sufficiently sensitive or delicate to detect them, and all three are capable of producing a number of effects of precisely the same character in every respect. They are all three capable of penetrating all other bodies with which man is acquainted; they are all three capable of dispersion by means of conduction or radiation; and they may all be accumulated and concentrated or intensified in their action. Thus electricity is capable of being diffused by means of light, and also by means of heat; that is, if electricity be accumulated or intensified in its action at any point, and light and heat only be given off from that point, it is found that the electricity is dispersed although no current of electricity proper has flowed from the point. And, again, if light or heat, either or both, be applied to any point, a current of electricity can be educed from it; all of which goes to show that light, heat, and electricity are one and the same substance under different modes of action and manifestation.

Magnetism, also chemical action, motion and gravitation are modifications of the same general substance, or effects of the same agency. That magnetism produces motion is the ordinary evidence we have of its existence. In the magneto-electric machine we see a rotating magnet evolving electricity; and the electricity so evolved may immediately after exhibit itself as heat, light, or chemical affinity. Faraday's discovery of the effect of magnetism on polarized light, as well as the discovery that change of magnetic state is accompanied by heat, point to further like connections. Moreover, various experiments show that the magnetization of a body alters its internal structure; and that conversely, the alteration of its internal structure, as by mechanical strain, alters its magnetic condition. From light, also, it is seen may proceed the like variety of agencies. The solar rays change the internal arrangement of the parts of particular crystals. Certain mixed gases which do not otherwise combine, combine in the sunlight. In some compounds light produces decomposition. Since the experiments of photographers have drawn attention to the subject, it has been shown that "a vast number of substances, both elementary and compound, are notably affected by this agent, even those apparently the most unalterable in character, such as metals. When a daguerreotype plate is connected with a proper apparatus "we get chemical action on the plate, electricity circulating through the

wires, magnetism in the coil, heat in the helix, and motion in the needles." The production of all other modes of force from chemical action scarcely needs mentioning. The ordinary accompaniment of chemical action is heat; when the affinities are intense, light also, under fit conditions, is produced. Chemical changes, involving alteration of bulk, cause motion both in the combining elements and in adjacent masses of matter; witness the expulsion of rocks by the explosion of gunpowder in blasting. In the galvanic battery electricity results from chemical composition and decomposition; while through the medium of this electricity chemical action produces magnetism.*

Science has hitherto discovered 62 or 63 natural elements, which enter into the composition of our earth and atmosphere, which it denominates simple or uncompounded, and which it thus classifies: Three permanent gases, oxygen, hydrogen and nitrogen; four elements having many similar characteristics, chlorine, bromine, iodine, and fluorine; five solids not possessing the usual metallic properties, such as metallic opacity and lustre, carbon, boron, selenium, sulphur and phosphorus; fifty metals, only one of which is a liquid, namely, mercury, or quicksilver, all the other metals being solid. Of these it is generally considered that all known things are constituted, and the names given to these simple substances, on account perhaps of their peculiar properties, distinguish them from one another. But it may not be necessary to understand any more than two elements in nature which we may call by the old names, electricity and carbon, the latter substance representing the solid parts of existence, the former the fluid or gaseous; and the time will come, and perhaps is not far distant, when scientific men will conclude that there is no necessity of understanding any more than one substance to be in existence, which we shall call spirit, or leave unnamed, and of which all the varieties and diversities met with in nature are but modifications and phenomena. Nor may they think it necessary to limit the number of these modifications to sixty-three, or to put any limit whatever to that number; for the number of modifications in nature, as existence itself, is infinite.

But let it be remembered that, though all these so-called simple substances are but modifications of the same general substance, yet the knowledge and classification of them, after such a manner as has been in vogue by scientific men, may not be without its use. If it may be employed in the arts for the abridgment of human labor, for the prevention of human suffering, or for the supply of human wants

* See Grove on the Correlation of Physical Forces; also, Herbert Spencer's Principals of Philosophy.

and necessities, conveniences or comforts, then it is useful; but, if it be employed in the arts which minister to the detriment of human beings, so far it would be better not known nor practiced. There are no men who should be more candid, more interested in the welfare of mankind, or more active and industrious for the amelioration of the condition of human beings, than learned and scientific men. They are in the possession of that of which the great mass of mankind are destitute, which, if they use aright, will doubtless prove a blessing to their race, but, if they abuse or neglect, will prove a detriment and an injustice. Such men should remember that they have a trust committed to them, for the proper use of which they are responsible to their Creator, but for the abuse of which they will suffer the consequences in their own experience. Men feel all the happier for being good and doing good, yea, all the good they possibly can. Let each one of our readers remember this.

But the great mass of mankind, although unacquainted with chemical science or natural philosophy, have yet enough of common sense and sound judgment to guide them in their use of natural objects. Nature is a good guide, if they will but give sufficient attention to it, observe its laws and live according to its dictates. Surely most men know that matter is continually changing, undergoing new modifications, and entering into new combinations; and that a material substance which in one state would be healthful, in another state, would be a rank poison. No man in the use of his senses and reason would choose to live in a place surrounded by unwholesome air and noxious gases in preference to a healthy place where there is an abundance of pure air, yet we find thousands in the rural districts, and even in large towns and cities, who erect their houses on the edge of marshes, and in the bottom of valleys, environed by hills, where they are surrounded with pestilential effluvia, carbonic acid gas and other gases, instead of on the brow or summit of a hill, where they will have the advantage of wholesome air. Neither would he choose to drink unwholesome pool-water in preference to the limped water of the running brook or the springing well; nor, in preference to this last, would he consent to use such productions of art, as champagne or claret, whiskey or rum, gin, ale, beer, porter, and such like intoxicating drinks, although a great many who, in other respects, seem to use right reason are weak and silly enough to make use of such beverages. If a man who sleeps in an ill-ventilated room does not know scientifically the cause that is producing the weakness of his system, it may interest him to be told that, in breathing the confined air during the night his system has absorbed its nutritive properties, and has left only that part of it which is not fit to be breathed, which is tech-

nically called carbonic acid gas, and which, if it continues to be breathed, will cause suffocation and will ultimately cause death,—he, then, will be likely to conclude, whether scientifically or not, that he needs a constant supply of fresh air in his sleeping apartment. But there are few men so stupid as not to know, even though they may not be acquainted with one of the first principles of chemical science, that they stand in need, day and night, of a constant supply of fresh air. Without any knowledge of chemistry, the coal miner knows that he needs a constant supply of fresh air in the mine or that he cannot work there (and here it is proper for us to remark, since the vital interests of a large class of human beings are at stake, that it is the duty of the proprietors of coal mines, and of other mineral mines, to provide that the mines be supplied with a copious supply of fresh air, and otherwise kept as safe as possible, and that there ought to be superintendents of mines appointed by government whose care it should be that these things be done). Coal mines are usually supposed to have two shafts reaching from the surface of the earth to the bottom of the mine, into one of which air is impelled by means of an air pump, which air traverses the whole length and breadth of the mine, penetrating all its departments and recesses, and enabling the men and animals there to prosecute their employments. At the bottom of the other shaft a fire is kept burning, which rarifies the air now vitiated and impregnated with noxious gases after traversing the mine, and causes it continually to ascend through this shaft. It will be remembered that air rarified by heat always ascends. In some of the coal mines of Pennsylvania, in which such appalling accidents have happened of late, we have learned, whether it be true or not, there are some that know, that there was only one shaft used for the access and escape of air to and from the mine.

Experience will teach men, if they will but observe, that the air in deep wells, in cellars, in close rooms, in caverns, in marshes and low places, as well as in the upper regions of our atmosphere, is unfit to breathe and detrimental to health; and how bracing and wholesome is the air upon the elevated surface of the earth, and in all places to which it has free access, or which are kept well ventilated; how the air inside a building which has become vitiated by the breathing for a long time of a large assembly of people is not by any means as wholesome to breathe as the pure out-of-door air; how that the water contained in marshes and stagnant pools is not fit to drink, and how that contained in the running brook or springing well is wholesome and refreshing; how that the piece of flesh or other article of food which when fresh would be wholesome and nutritious, when undergoing decay would be a rank poison.

The hungry man does not stop to enquire whether the loaf of bread he receives is a compound of a number of simple substances, or whether it is but one substance. He takes it for granted that it is wholesome, and does not suspect that it contains any noxious properties. The use of a similar substance before has given him experience to know that it is just what he wants to satisfy his appetite. He knows, very probably, that it is made up of flour, water, yeast and salt; and it may not interest him to learn that the component salt is itself a compound of chlorine and sodium; that the yeast is composed of carbon, oxygen, hydrogen, and nitrogen; that the water is composed of oxygen and hydrogen; and that the flour is the product of the albumen of the wheat or other grain, which is itself made up of carbon, oxygen, hydrogen, nitrogen, sulphur, phosphorus, &c., and that the whole loaf, if he can spare it, may be reduced to the state of a gas or air by the application to it of sufficient heat. He, probably, in his hungry state is not interested to know whether the egg he receives is but one simple substance, or that science has determined it to be made up of 55 parts carbon, 16 parts nitrogen, 7 parts hydrogen, and the remaining 22 parts, out of a hundred into which the egg is supposed to be divided chemically, are made up of oxygen, phosphorus, sulphur, &c., and that it, as the loaf, can be reduced to the form of an invisible gas by heat. But if he received that loaf or egg in a mouldy or decayed state, his reason or common sense would at once suggest to him that it would be injurious to his system if he ate it. He probably does not know, nor is interested to learn, whether the piece of flesh he receives is one simple substance, or whether it may be compounded of many simple substances, as carbon, hydrogen, nitrogen, oxygen, sulphur, phosphorus, &c., which chemical science determines it to be. He takes and uses these without hesitation, knowing from past experience and daily observation, that they are just such food as he needs. But if he receives these in a decayed state he would not use them, experience also telling him that in such a state they would do him hurt. Good common sense, therefore, accurate observation of the operations of nature, and the experience which is derived from the varied scenes and associations of life, seem most of the knowledge that is necessary for men to be possessed of, provided they use them rationally, in order to their well-being. It is, however, desirable that men should become possessed of all the knowledge they can, whether in relation to science, or art, or the affairs of life or any other branch of knowledge which may administer to their happiness and well-being. But even here common sense and reason should guide them in the selection of the branches of knowledge

which they should pursue; those should be selected which are most necessary, and undertaken and pursued with a good and useful end and object in view. Time, for example, spent in the study of some of the dead languages and of some other branches which are never reduced to practical use, if these studies be not pursued merely as a discipline for the mind whereby some good may be derived from them in that sense, is time lost. That time might be well and usefully spent in a practical way, or in the study of those branches which could be reduced to a practical use for the benefit and well-being of the person's self and of mankind. And not only the person's own benefit, but that of mankind also should be kept in view, in the selection and pursuit of any branch of study. The knowledge of chemistry, we allow, may be made of great use to mankind, if employed by those who become possessed of it for the benefit and highest good of mankind, and not, as in many cases it is, for their detriment. What shall we say of all these poisonous luxuries that adorn the tables of the rich, and which owe their existence to chemistry? Or of gunpowder, which chemistry informs us is made up of nitrate of potassa, carbon and sulphur, in specific quantities?

That that which we denominate matter has never not existed,* will become more apparent as we proceed and is the opinion now most generally entertained among the learned. But that change has always taken place in matter, that the earth and the heavenly bodies have always been as to their substance and motion the same as they are now, that mankind has always existed as to general form and appearance much as he in general exists now, that the universe has always presented to the eye of man, in general, the same phenomena as it does now, that it has always been to him a present thing,—a thing, we say, so far as it came within his view or could be conceived by his mind; but as to its being wholly conceived by his mind, nothing; of all this, although we do not necessarily assert the positive, preferring to leave people to judge for themselves concerning these matters from the arguments which we shall afterwards adduce, we may assert that there is no valid evidence to the contrary. (†)

The only conceptions which the mind of man can form are of objects or things. Objects or things are limited or bounded, they all

---

* If matter, which by any means knowable cannot possibly be annihilated, is asserted to have been brought into existence in some way called creation, it may and often is consistently asked, how has that space been created which matter occupies? If inquiry is necessary concerning this subject, the creation of one of these is as much a subject of inquiry as that of the other.

(†) See examination and comparison of the accounts of the Creation in the book of Genesis in the beginning of Part Second of this book. To these accounts, or to the hypothesis of "evolution" which has for its base the "Nebular hypothesis," they may refer who are not content with creation as it actually takes place.

have a beginning and an end, a limit in every direction. But the universe being infinite, that is, without beginning or end, or any conceivable possible limit in any direction whatever, is no thing, no object: it is *nothing.* This may be better understood from an illustration. Take a line, (which is necessarily an imaginary one,) and beginning at any given point, say the centre of the table before you, conceive of it as extended upward toward the Zenith, or straight above your head; or right downwards toward the Nadir, straight beneath your feet; or towards the East, West, North or South, or in any other direction whatever, toward any point of the celestial sphere; conceive of this line as extended for any length of time, say for a thousand millions of centuries, and at any rate of rapidity of extension, say ten thousand millions of miles per second; let it be conceived of as extended for any length of time, and at any rate of rapidity whatever, and it can never be conceived of as coming to a termination in any one direction, so that it cannot be conceived as being capable of being extended further. It is as near such a termination in any direction where it ceases to be extended, as it is at the central point of the table from whence it began to be extended. And that central point, too, of the table, which we have used for convenience of illustration, we do not conceive as having either beginning or end: it is infinite and nothing. Here then is the idea or the no idea; the universe everything and nothing; a point infinite and nothing.*

The human mind, as we have stated, can conceive only of objects or things. A man is an object, a tree is an object, the earth is an object, the moon is an object, the sun is an object, the planets and stars are objects; and everything that has or can be conceived of as having a beginning and an end, a bound in every direction of space, and everything that has or can be conceived of as having a beginning and an end in time, is an object or thing. In fact the universe, so far as it can be conceived by the mind, is an object or thing; but considered as infinite it is nothing.

This illustration of infinitude and finitude will throw some light upon the statements we have made in the opening page of this book, as to the Creator and Creation. Is it not very plain that our omnipotent and glorious Creator, that is infinite, cannot be conceived by the mind, much less seen by the eye? And yet men are so unrea-

---

* If any one will consider for a moment upon this subject he will realize that, in a sense, he is infinite. The thought starts from his own mind, and, like Noah's dove, sent forth from the ark, can find no resting-place in any direction whatever until it return to his own mind again. In the mind it has the beginning and the end. If the mind could reach a limit in any direction whatever so that it could not conceive further, he would be finite, not infinite.

sonable, so presumptuous, as to set up material objects as representations of Him, and worship them; and invent systems of ideas which they call systems, or "bodies" of divinity, and set them up and worship them instead of Him. For how is it possible to conceive of an Infinite Being? The mind can form no idea of Him, and how absurd and blasphemous that men should worship objects and things such as the sun, moon and stars, idols of wood and of stone, and men living and dead of their own race! It appears so absurd and blasphemous as scarcely to be tolerable. And yet we are sensible of the presence of our great Creator, and can see His character reflected in every natural object. How important it is that men should be good and do good, and maintain an humble and devout spirit in His presence?

It is plain that the distinction between objects and things and nothing, or, in other words, between the finite and the infinite, arises from the different states and conditions of matter as to density and rarity,—an idea which perhaps will be understood from the explanation we have already given of it, and may be more clearly understood from what follows: If all the matter in our globe and in all the other bodies in space were reduced to a gaseous or aeriform state, all of the same density, which reduction we have shown to be theoretically possible, there could be no object or thing in the universe: nothing but space which we can now conceive would exist. We might conceive of space to no end, but there would be no proper object to be conceived by the mind. Matter considered in the form of our earth or of any other globe, or even of Saturn's ring or of any other form, is an object or thing, and the condition of its being a definite object depends upon its existing in that condensed form to distinguish it from other forms of matter. Hence partly arises the numberless objects which are in and on the earth, partly we say, for some objects are distinguishable from others by their difference of density, some by their difference in form, and some by their difference of color, etc.; for there is such a diversity in all these, and in other respects, that scarcely any two objects in all nature are exactly alike in every respect. This will be better understood from illustrations which we design to give further on. Hence it may truly be said that the earth exists out of nothing, also the sun, moon and stars, and each of the other heavenly bodies which do exist in the universe; each of these bodies, however large, is a definite object or thing, and each of them may be said to exist out of nothing; and, if all were reduced to an aeriform state of the same density throughout, they would cease to be definite objects or things and would vanish into nothing. Hence too, may have arisen the notion entertained by the ancients, of the

earth and the heavens having been created or caused to exist out of nothing in six days, a notion which has descended to our time, but which of late, since the researches of geologists and astronomers have shed a glimmer of light upon the subject, has been discarded, or rather the subject has begun to be understood differently—understood in such a way for the sake of accommodation, perhaps, that the six days are made to represent six long periods of time. And what, do we guess, will be the next step which theologians and all godly men will take with respect to this subject. Why they will be happy to confess that for what they know to the contrary the globe on which we dwell as to its essence and present general form has never not existed; even thus they generally look at it now, leaving the perfect understanding of it to God alone. The doctrine of the creation of the cosmos out of nothing, as it has been taught and believed, has been the cause of a great deal of superstition, and indeed a particular inconvenience and impediment to progress, in the right direction. Not the old creation of Genesis but the new creation of John should be held out as of any importance for men to believe in; not a creed of miracles which are only properly understood by a few, or of traditions which as commonly and literally understood are nullified by their inconsistency should be held forth as of importance for men to accept by the teachers of mankind. They should teach men to be good and to do good individually; to live lives of self-denial, of holiness and righteousness, of charity and of honest industry: they should teach men to depend for happiness and peace upon their own godly living, and not to depend for immunity for their own misspent lives, their lives of impurity, of vice and wickedness, upon the virtues of any other. They should practise this doctrine of regeneration themselves, and let their lives of humility, of industry and of godliness be conspicuous examples for those they teach to imitate. They should not teach men to expect the millennium, except men themselves, by their godly living, bring it in; and they should do all in their power in the state, in their own narrower sphere, and in the improvement of individual life, to introduce and perpetuate that glorious era.

That the cosmos as to the phenomena of forms, motions, &c., has never not existed while there is no evidence definitely to prove, as it is impossible for us to conceive infinite time any more than infinite space, there is, as we have mentioned before, no evidence to disprove. While men have no knowledge of its having existed even essentially in any other way, say for example, in a nebular state, as the nebular hypothesis, which we shall speak of, by and by, and which is only an hypothesis, assumed, yet they have definite knowl-

edge for long periods of time, of its having existed in the present general way, as to phenomena of forms, motions, &c. Although Astronomy was cultivated by the ancient eastern nations, especially the Babylonians and Egyptians, for thousands of years before the Christian Era, yet Thales, a Milesian, whose date is 610 B. C. was the first we know of, to have recorded an eclipse; and astronomers of the present day tracing backward the eclipses to his time have determined his record to be correct; and also that the earth, moon, sun, and planets have performed their revolutions during that period with *undeviating regularity and precision.* Therefore, tracing backwards in the same manner we shall find that we have no right to infer that as to the phenomena of forms, motions, &c. they ever existed in any other way than as in general, they do now, or that their substance assumed such forms, motions, &c., from having existed previously in any other state, since we have no evidence for any such conclusion and are not necessitated to point an assumption from which to draw any such inference, which would be heaping one hypothesis upon another. The compound ring of the planet Saturn is a body of such immense dimensions that it is computed to contain an area of more than one hundred times that of our globe, and to revolve around that planet at an exceedingly rapid rate of motion, namely, 900 miles a minute. It is found to be not exactly concentric with the body of Saturn, and, therefore, must subsist about that planet in a state of unstable equilibrium. "The observed oscillation," says Sir J. Herschell, "of the centres of the rings about that of the planet is, in itself, the evidence of a perpetual contest between conservative and destructive powers, both extremely feeble, but so antagonistic to one another as to prevent the latter from ever acquiring an uncontrollable ascendancy and rushing to a catastrophe. The smallest difference of velocity between the body of the planet and the rings must infallibly precipitate the latter on the former, never more to separate; consequently their motion in their common orbit round the sun must have been adjusted to each other by an external power with the minutest precision, or the rings must have been formed about the planet, while subject to their common orbitual motion, and under the full free influence of all the acting powers." Such is the complexity of the system of Saturn:—the immense globe of the planet, itself a thousand times larger than the earth, in rapid motion, and surrounded with a compound ring of such immense dimensions, as we have mentioned above, and with eight moons, all in rapid motion around the body of the planet, and with the planet in space around the sun,—as well as the doctrine of gravitation, as all forbid the idea of these bodies having been formed or their

motions adjusted to each other when in rapid motion in space, and subject to all the acting forces.

But the main question which will suggest itself in the case before us, doubtless, is:—If the cosmos as to the phenomena of form, motion, &c., has not always existed as it does now, how has it come to exist thus? One of the first ideas that strike the mind when investigating this subject is that of the gradual condensation of matter from all sides towards a common centre. This probably led some to suppose that the earth and all the celestial bodies are the results of a gradual condensation or closing in of the matter of which they are composed towards their several common centres. But such a thought or theory is inconsistent with the general theory of gravitation, with the regularity and precision of the motions of the spheres, as well as with the character and constitution of the earth as to solid, liquid, and gaseous. All things on the earth's surface, and for a certain distance in a perpendicular direction from its surface, tend or are attracted toward its centre. So, doubtless, it is with all the celestial spheres. If an earthly body, solid or liquid, is rarified sufficiently by heat, it ascends from its surface, but becoming condensed in the atmosphere it returns to the earth's surface again. You can reduce water to the form of a gas, as steam, but it becomes vapor in the atmosphere, accumulates into clouds and descends to the earth again in the form of water or rain. Also, if any earthly substance, mineral or metal be reduced to a gas, every particle of it will soon find its way to the earth again in some form or in different forms, for the atmosphere is so constituted as to be sufficient in itself to answer the purpose which it is adapted to fulfil. Water is also so constituted as to be a stable element, sufficient in itself to fulfil the purpose for which it is adapted; there is always exactly the same quantity of it in the earth, and, belonging to the earth, in the atmosphere in the form of vapor. The solid parts of the earth also are so constituted as to be a stable element, sufficient in itself to fulfil the purpose for which it is adapted; for, as we have stated, if an earthly substance or mineral be reduced to an aeriform state every particle of it will find its way to the earth again: the atmosphere does not want it, having enough of its own, and whilst it remains there it is a foreign in the midst of a native element. Also, if any part of the dry land by earthquakes, the action of the waves on coasts, or any occurrence in nature, be submerged, an equal extent will be freed from the dominion of the waters in some other place; and men bringing their land plants and animals with them, they will all be propagated upon this new land to supply the place of those vegetables and animals which were lost by submergence. There is no sufficient

reason to believe that more than small portions of land are lost at any time by the water, or that more than small portions are set free when compared with the whole extent of the dry land.

The solids of the earth, the waters, and the atmosphere always retain their natural or normal bulk, if not expanded by the admission to them of an excess of heat, or contracted by the abstraction of some of the heat that naturally belongs to them. A certain quantity of heat, as we have before said, belongs to all bodies, and so long as they possess just that amount and no more, or no less, they are said to be in their natural or normal state. And the doctrines of natural science prove, as clearly as anything can be proved, the stability of fluids if allowed to remain in their natural state. It is proved by hydrostatics and pneumatics that fluids press equally in all directions.* For example: fill a cubic measure full of water or atmospheric air, the lid being put on air-tight, the pressure upwards against the lid of the vessel will be the same as that downwards against its bottom, and the pressure against its sides will be equal to the upward or downward pressure. This is seen more clearly in the case of a globe-shaped vessel filled with water or air; the pressure outwards upon every point of the inside of the sphere will be equal; and the fluid is said to be in stable equilibrium. Let it be remembered that the fluid in both of these cases needs to be in its natural state; for if either water or atmospheric air be possessed of more than its natural amount of heat its tendency is to ascend, and, therefore, the pressure upwards against the lid of the vessel would be greater than that downward or in any other direction. Heated water is seen to ascend in the shape of steam, and the air, heated in the fire place, makes its way up the chimney, carrying with it the unconsumed particles of charcoal, in which condition it is called smoke.

The fact of air and water or any other body, expanded by heat, ascending perpendicularly rather than going in any other direction from the earth's surface, needs explanation. Thus it will be remembered that the earth is round like a ball, and is continually revolving round an imaginary line, passing from its north to its south poles or points, and called the earth's axis. It revolves round its circumference in the space of about twenty-four hours, producing in that length of time the succession of day and night. When it is noonday with us in the northern hemisphere, it is midnight with those

* Such is the general statement in Hydrostatics and Pneumatics, but it is necessary to modify it thus: the lateral pressure varies according to the perpendicular height, that is to say, it increases with the square of the depth; and in this respect it is governed by precisely the same law that governs the velocity of "falling bodies;" see farther on page 43. See also Joyce's Scientific dialogues under Hydrostatics as to this limitation.

residing in the southern hemisphere, and during the interval of twelve hours, between twelve o'clock night and twelve o'clock noon, the earth has travelled round half her circumference, or over 12,000 miles; and during the interval of twelve hours more, between twelve o'clock, noon, and twelve o'clock, night, the earth has travelled over 12,000 miles more, or the other half of her circumference; for the whole circumference of the earth is nearly 25,000 miles. It will be readily understood, therefore, that the inhabitants of the southern hemisphere have the soles of their feet directly opposite to those of ours, and their heads pointing in contrary directions to our heads. Hence in the day-time, when we consider ourselves looking up into the heavens and contemplating the sun, they must necessarily be looking downwards, or in the contrary direction, when viewing the stars; and in the night-time, when we consider ourselves looking up into the heavens and contemplating the moon, the stars and the milky way, it being their day-time, they must be looking downwards, or in the contrary direction, when viewing the sun. And, conversely, during their day-time, which is our night, when they imagine themselves looking up toward the sun and the shining heavens, we must necessarily be looking downwards, or in the contrary direction, while gazing on the moon, the stars and the milky way; and during their night-time, which is our day, when they imagine themselves looking up toward the heavens at the stars, the moon and the milky way, we must necessarily be looking downwards, or in a contrary direction, while contemplating the sun in his brightness passing the meridian. Hence, as in natural science it is proved that equal and opposite forces, acting on the same plane, produce a negative result, so it is here as evidently proved that there is *neither up nor down* as regards the universe, or, speaking otherwise, as regards infinite, spiritual or material existence.* This subject may be more clearly illustrated by the use of an artificial globe, such as are used in schools. Thus, the earth being round like a ball, when a body is expanded by heat into a gas at any point of its surface, it will take a direction perpendicular to the place where it begins to be expanded in separating itself from the earth's surface. Hence, if the whole earth underwent a gradual expansion at the same time, the expanding matter going in directions perpendicular to every point of the earth's surface, we may conceive that the earth, provided it became

* In this connection it is fitting to remark that there are alike apparent contradictions with respect to the motions of the earth. Thus the earth moves round its axis in a contrary direction to that in which it moves round the sun. And in its motion toward the constellation, Hercules, in company with the sun and the other members of his system, it moves in a direction different from either of these. So that the threefold contradiction, apparently, at least, nullifies the real motion.

reduced into fluid, all of the same density, would be expanded into an immense gaseous globe, perhaps fifty or one hundred thousand times its present dimensions, though still retaining its globular form. This we have shown before to be theoretically probable, though it is not practically so, for as long as the material elements, solid, liquid, and gaseous, of which our earth and atmosphere are composed have neither more nor less heat than what naturally belongs to them, they will remain in their natural state.

Also, the uniform globular figure of the earth and of all other heavenly bodies is no disproof of their permanency. To this spherical form of the heavenly bodies there is no exception but one, namely, Saturn's compound ring, among the tens of thousands of those bodies which the telescope has enabled us to explore. And if all these bodies were formed by the gradual settling in of their matter towards their centres, how does it happen that none of them except Saturn's ring is of any other than a globular form? why are not some of them in the form of squares, or pentagons, or hexagons, or in some other polyhedral form? or why did Saturn's compound ring assume the form it has? The evidences that the earth is a globe are complete and irresistible; and every one who has the use of his eyes knows by observation that the sun and moon are round. The telescope enables us to contemplate the planets of the solar system from a nearer standpoint than that at which we survey the moon without its aid. All these planets are of globular shape, each performing its motions in space as the earth is. Telescopes of high magnifying power, such as that of Herschell and Earl Rosse, also virtually transport us to the regions of the fixed stars, regions so immensely distant that any conceivable agent, travelling at the rate of twelve millions of miles a minute, would take scores, yea hundreds, and from some of them, thousands of years to reach our earth. Although the distance of those stars are so immensely great that none of them have yet been closely contemplated, still there is evidence, judging from the *cones* of light which they send forth, to show them to be of globular figure.

The great nebular systems, so many of which have been brought into view by the telescope, are found when closely scrutinized by telescopes of great space-penetrating power, to consist of systems of stars, each star of which it is reasonably conjectured is the centre sun of a planetary system, and each star and planet of which is most probably of the globular form. Over 3600 of these systems of nebulæ have been discovered in the northern and southern hemispheres. The nebulæ which were known to astronomers before the great telescopes were invented had given rise to various theories, and, among

them, this, to which the assent of many minds was given, that the formation of the celestial spheres took place from the gradual condensation of celestial vapor, such as these nebulæ appeared to them to be. Sir Wm. Herschell's great telescope first dispelled this idea by showing that many of the nebulæ, so regarded as vapor, were really clusters of stars; but at the same time by its space-penetrating power it reveals new nebulæ before unknown and beyond its resolving power. The construction of Earl Rosse's great telescope next contributed a new and vastly increased resolving power, and again showed the nebulæ unresolved before consisted of star-clusters only still more remote, but at the same time it added to our knowledge the existence of other nebulæ before unknown, and, in turn, beyond its power of resolution. "Thus," says Humboldt, "by increasing optical power, resolution of old and discovery of new would follow each other in endless succession; so that it may be fairly asked whether we can with probability assume both such a state of the universe, and such a degree of improvement in optical instruments, that in the whole firmament there shall not remain one unresolved nebulæ." When the phenomena which gave rise to the theory of gradual condensation had vanished, one would think that the false impression to which the theory gave rise should vanish also. It is not, however, necessary for any one to conclude that all the bodies existing in space, as our earth is, are of globular form, for, although all those we can see with our eyes and all the telescope has brought within our view are of that form, yet the universe being infinite, there may still remain bodies existing in it of great diversity of form.

Also, the laws of gravitation, by which all things on or near the earth's surface are drawn towards its centre with a force proportional to their weight, are further proof of the earth's permanence. Although the laws of gravitation act universally, yet that which we have to speak of concerning them here relates to the earth and its neighbor globes of the solar system. We have before endeavored to illustrate that the earth is round like a ball; and as we know by observation and experience that all things on the side of the earth on which we are tend towards its centre, even so all things on the side of the earth opposite to us are attracted toward the same centre but in a contrary direction. Every point on the earth's surface has a point situated directly opposite to it in another hemisphere of the earth: thus, we and all around us are attracted towards the earth's centre, while those in Australia, directly opposite to us, are attracted toward the same centre in a contrary direction. Those also in Central Asia are attracted toward the earth's centre in a direction contrary to that in which the people of Brazil are attracted towards the same

centre; and those living in Northern Africa and Europe are attracted in a direction contrary to that in which the New Zealanders are attracted. Thus we see all bodies, wherever they are situated on the earth's surface, are attracted towards its centre. The force of this attraction is found to be the same at all points on the earth's surface, with the exception of an exceedingly slight variation at the North and South Poles. This being so there are equal and opposite forces in operation at all points on the earth's surface, which produces a negation; for equal and opposite forces acting on the same plane, produce a negative result. Now, as every point on the earth's surface has a corresponding point directly opposite to it on the other side of the earth, and as there are two forces connecting these two points respectively with the earth's centre which are equal and acting directly opposite to each other, these forces may be conceived to meet on opposite sides of a plane, situated at right angles to their direction, and to produce a negative result, that is, no result beyond nullifying each other.* These two forces represent any two equal and opposite forces, or any number of equal and opposite forces acting towards the earth's centre, and from this the conclusion *appears* evident that the earth as a whole, or any analogous co-existing body in space, has, of itself, no weight. It may, therefore, truly be said that there are no forces of attraction connecting the surface of the earth with its centre, except that by which lighter bodies have to yield to heavier ones. This, however, is a definite force, well-known, and acting uniformly and universally. The earth's elements, and consequently itself, are so constituted as to be in equilibrium; and the reason why bodies in its atmosphere tend towards its surface, and those on its surface towards its centre is because their specific gravity is greater than the medium in which they are; and because the interior and centre of the earth are made up of weightier materials than its exterior parts. Put a piece of iron into water, and it sinks to the bottom; put a piece of wood in, and it floats on the top; because the weight, that is, the specific gravity of the iron, is greater than its own bulk of water and that of the wood lighter. Elevate a solid body of any kind in the air, and having nothing to support it, it falls to the earth, because its weight is greater than that of its own bulk of air. In one sense, therefore, gravity means the same as weight, and the word *gravitas* is

* This conclusion, you see, corresponds to the conclusions we have come to as to the motions and shows that, at least apparently, gravitation means nothing beyond what we here explain as to the invariable descent or approach of lighter bodies towards heavier ones, or of the rarer to the more dense, or of the less attractive to the more attractive, as the loadstone. That Gravitation, as Light, Heat, Magnetism, Motion, &c., is a modification of the one general substance or an effect of the one great agency, is here quite apparent. We give a more simple illustration of it farther on under the head of the "Attraction of Gravitation."

the Latin for the English word *weight*. It may seem strange to some that the earth, being round like a ball, should have the faculty of drawing bodies towards itself at every point of its surface; for, if a solid body be elevated in the air at a point of the earth directly opposite to that which we occupy, the body falls to its surface, as with us; and if iron or wood be there thrown into the water, the one will sink and the other float, as with us. Now it is known beyond all doubt, that all bodies possess the power of attraction in proportion to the quantity of matter they contain. Some bodies, as the loadstone, possess it even in a greater degree. It is plain, therefore, that the earth being so much larger than any body on or near its surface, possesses the power of attracting them to itself at every point on its surface. This power, however, is not limited in its action by the earth's surface, but extends into the atmosphere and far into space. It is the earth's attraction which retains the moon in its orbit round the earth; and it is the sun's attraction which retains the earth and moon in their orbit round the sun; and, conversely, it is the attraction of the earth and moon and all the planets which retains the sun in his position and orbit in space. The attraction, therefore, is mutual between all bodies in space, and in the main acts in proportion to their several weights. Bodies, however small, at or near the earth's surface, attract the earth in proportion to their weight; but the earth being so much weighter than any of these, their attraction is as nothing compared with the earth's, and, therefore, all these small forces yield to the attraction of the earth. The earth, also, being nearly fifty times larger than the moon, exerts on the latter a proportional attraction, and thus retains it in its orbit round the earth, and prevents it from flying off into space in a tangential direction, which that body, as all other globes in space, has a tendency to do, if not counteracted by the superior weight of other bodies. And the sun being over 1,300,000 times larger than the earth, and considerably larger than all the known planets of his system taken together, exerts a balancing power over all these bodies. It is plain, therefore, that all these bodies are in equilibrium, and that the principle of attraction may be resolved into that of the maintenance of equilibrium, and of the stability of order. The universe, though it may be considered as one great whole, is constituted of different parts, and these parts of different elements, all of the same general substance, but in different degrees of density and rarity. The earth, though composed of three elements, solid, liquid, and aeriform, each of which fills its own place and performs its own functions in the earth's economy, may be called a unit; and each of these constituent parts may be called unit in relation to the constitution of the earth; but yet the earth is

only a member of universal existence, filling its own place, and performing its own functions, as the other members are.

We have mentioned before with what regularity the earth and the heavenly bodies move. This regularity and precision is not greater than that which governs bodies falling towards the earth's surface. Small bodies will not fall to the earth unless they be within the sphere of the earth's attraction. By this we mean that there are parts of space in which the earth's attraction is nothing. The sun, moon, and each of the planets has a sphere of attraction of its own. But then, there are spaces intermediate of these bodies, which do not come within their spheres of attraction in any sensible degree. There, as we have before remarked, the ether is in equilibrium. Not that the attraction of each of these bodies is not exerted on each of the others, but that their contrary attractions, counteracting each other, produce equilibrium in certain parts of the space intermediate of these bodies.

The attraction of gravity, and the dispersion of light and heat, are analogous in their operation. The force of all these decreases with the square of the distance from the centre of action. Suppose you are reading at a certain distance from a candle, and that you receive a certain quantity of light on your book, if you remove to double that distance from the candle you will enjoy four times less light than you had before; here, then, though you have but doubled your distance, you have diminished your light four-fold, because four is the square of two. If, instead of doubling your distance from the candle, you remove to three, four, five, or six times the distance from it, you will then receive at these different distances, nine, sixteen, twenty-five, or thirty-six times less light than you did at first, for these, respectively, are the squares of the numbers three, four, five, six. The same is applicable to the heat imparted by a fire, at a distance of two yards, from which a person will enjoy four times less heat than one who sits at one yard from it, and at three yards distance nine times less heat, and so on decreasing with the square of the distance from the fire. And if a body is removed to double the distance from the centre of gravity, the attraction exerted on it is one-fourth; if to three times the distance, it is one-ninth; if to four times the distance, one-sixteenth, and so on decreasing as the squares of the distances increase.

All bodies have their centres of gravity or points about which all their parts are balanced. The earth's centre of gravity is its centre. The *differences of the power* of the earth's attraction are not discernible at short distances from its surface, owing to the distance of the latter from the centre of gravity. But it is determined that, could we ascend 4000 miles from its surface, or double the distance of the

surface from the centre, we should there find the attractive force to be one-fourth of what it is here; or, for example, that a body, which at the earth's surface weighs one pound, would, at 4000 miles above the earth, weigh but a quarter of a pound. By the most accurate observations the moon is found to be obedient to the same laws of attraction as other heavy bodies are. Its mean distance is clearly ascertained to be about 240,000 miles, or equal to about sixty semi-diameters of the earth, and, of course, the earth's attraction on the moon ought to diminish in the proportion of the square of this distance, that is, it ought to be sixty times sixty, or 3600 times less at the moon than it is at the earth's surface. This is found to be the case by the *measure of the deviation* of its course from a right line. Bodies near the earth's surface, when left free to descend, fall at the rate of sixteen feet in the first second of time; but as the attraction of gravity is continually acting, so the body continues to fall with an increasing, or, as it is usually called, an accelerating velocity. It has been determined, by the most accurate experiments, that a body falling from a considerable height, by the force of gravity, falls sixteen feet in the first second; three times sixteen feet in the next; five times sixteen feet in the third; seven times sixteen feet in the fourth, and so on, constantly increasing according to the odd numbers, one, three, five, seven, nine, etc. By reason of the centrifugal force, that is, the force which impels the earth in its orbit, the distance fallen in the first second varies a little in different latitudes.

The following rule holds in all cases as to falling bodies: that the spaces they describe when falling freely from a state of rest increase as the squares of the times increase. Or, the following formulæ with respect to falling bodies will convey a clearer idea of the uniformity with which this law acts:

Seconds.	Space passed over in a second.	Velocity at end of second.	Total space passed over to end of second.
1	1	2	$1 = 1^2$
2	3	4	$4 = 2^2$
3	5	6	$9 = 3^2$
4	7	8	$16 = 4^2$
5	9	10	$25 = 5^2$
6	11	12	$36 = 6^2$
7	13	14	$49 = 7^2$

If, after the demonstration of the uniformity of the action of gravity, any one should be puzzled to understand how it is that while the earth is continually rolling round like a ball, it retains all things in connection with it to its surface, they should remember that we constantly meet with illustrations of this force. A can, filled with water may be swung round the head without a drop being spilt. When

the can is at its highest point, and therefore has its mouth downwards, the water is attracted towards the earth; but this attraction is more than overcome by the centrifugal force, or the force of the hand by which the can is swung, and hence it remains in the can as if it were solid. It does not lose a particle of its water. Some persons are worried because they say they cannot understand this with regard to the earth, but the same persons hardly ever consider how it is that flies and other insects walk upon a perpendicular pane of glass or upon the ceiling over their heads. Does this not seem as inexplicable as the other?

But something has, at least, been adduced to show the probability of the permanency of the cosmos, constituted in general as to phenomena of form, motion, elements, &c., as it is now. Nothing can be brought forward to prove the contrary of that probability; and if any one attempted to prove such contrary, it would be well for him to prove how it came into existence, how it attained its present general constitution as to elements, forms, motions, &c.; how it is maintained in this constitution, where, in short, it came from, and as we may suppose such a one would hold the doctrine of its final destruction, where it is going to, and when?

We have shown heretofore that matter and spirit are the same thing * in different states as to density and rarity; that the most solid substances can be reduced to an aeriform state, and it is of the same essence in the gaseous form as it is in the solid. In the one case it is condensed, in the other expanded; in the one case it is the solid, tangible substance, in the other the intangible, invisible gas. Spirit, from the Latin word *spirare*, to breathe, from which our words inspire, expire, etc., are derived, means that which we breathe, or breath. The Greek word for the same thing is πνεῦμά, wind, or breath, from which our technical word, pneumatics, is derived, meaning the science which treats of wind or air. Also, the Hebrew word, translated into our language, spirit, means air or wind; as for instance in the second verse of the first chapter of Genesis, it says, the Spirit of God moved upon the face of the waters, which equals, the wind of God moved upon the face of the waters. The difference between spirit and matter, then, is only one of degree of density and rarity of substance; it is the same substance in two different states; in the one state in a form to be breathed, in the other in a form too dense to be breathed. We do not mean to say that air derived from the reduction of any and every solid substance to a

(*) Mind, as it relates to man, is properly called a development from matter or from spirit; but mind is really infinite and universal as is deity. The soul as applied to man means the living, conscious, rational human being, and in a wider sense the principle of life in man.

gaseous form would be fit to be breathed by human beings and all the animal creation; we mean only that it would be air or wind (for wind is air in a state of motion) just as much air as is the atmosphere which surrounds us. We do not mean to say that the solid parts of the earth, or even water, are intended to be reduced to air and breathed; indeed their very constitution, and the purposes they fulfil in the production and support of animals and vegetables, indicate different. The atmosphere is that one constituent element of our terrestrial system, which is intended to be breathed. Each of the three constituent elements of our system has its own purpose to fulfil, and yet they are all three mutually helpful to each other. The atmosphere and water may be called the servants of the solid earth. The earth needs air and water as well as the solar light in order to the production and support of vegetables and animals. The earth also supplies oxygen to the atmosphere, and absorbs the impurities with which that element becomes impregnated. This operation is performed by the leaves or lungs of vegetables, which absorb the carbonic acid (*) from the air, retain its carbon to increase the solid tissue of their plants, and expire or reject its oxygen, which is the vital principle of the air we breathe. The atmosphere, as a sponge, sucks up the water from the surface of the ocean, of lakes and rivers, and lets it down upon the thirsty earth again in the form of rain. This process of imbibing water by the atmosphere is called evaporation. These three elements are, as we have before remarked, modifications of the same general substance, each so constituted that nothing can be added to or taken from it; but they are all three mutually dependent on each other, as the parts of the human or other animal body are dependent on each other. When water is evaporated from the surface of the ocean, of lakes, and of rivers, it is not lost—not a particle of it goes beyond the sphere of the earth's attraction; but having descended to the earth again as rain, snow, etc., it in due time finds its way into the rivers and thence to the ocean. When a tree decays, part of it becomes water, part carbonic acid, and part humus or clay. When any vegetable or animal body goes to decay, its component parts return eventually to their original elements, earth, water, and air. These three elements in the constitution of the terrestrial system form an individual or unit, just as the parts and members of the human body form an individual or unit.

Matter is defined in general terms to be everything which is an object of our senses, and includes the ideas of extension, solidity, inactivity, and mobility. The theory with respect to the constitution of matter hitherto is: that all matter is made up of infinitely small

(*) Carbonic acid is composed of Carbon and Oxygen.

particles, called atoms, that is, parts so minute as to be incapable of further division; and that these atoms or ultimate particles are unchangeable and indestructible, unless the power which gave them existence so effects it. The most minute particles, which even the microscope can only just discern, may contain millions of these atoms, so that they must be infinitely beyond the reach of the recognition of our senses. A molecule (a little mass) which may be called the secondary atom, is the smallest particle capaple of existing by itself. This, though it may contain millions of atoms and be undiscernible by the naked eye, is considered the ultimate particle of a compound body. For a long time the theory supposed these molecules to be round, solid particles, but the expansion and contraction of bodies under the influence of light, heat, and electricity had never been satisfactorily accounted for on this hypothesis, nor how solid bodies become liquid, and solid and liquid bodies become gasiform. The theory, therefore, has for some time supposed that the molecules of matter are not solid, but are filled with electricity, as the soap bubble is with air, and are, like it, capable of great elastic expansion and contraction, and that they are only round like the soap bubble when taken singly, but are polyhedral or manysided over all their surfaces of contact, when like the soap bubbles in connection with each other, or in clusters. This theory shows how electricity, which undoubtedly pervades all bodies, may be contained within the molecules: and also how electricity, which is undoubtedly capable of expanding all bodies, can expand them; and further, how molecules, which, from extreme contraction are hard, and solid, and opaque, may, by extreme expansion and rarefaction, become fluid, gaseous, diaphanous, and transparent. It also satisfies the chemical requirement of definite atoms for proportional admixtures of different elements and their concurrent expansion and contraction within definite limits in the compounds they form.

But let us see from the following illustrations what these molecules are which are conceived to be filled with electricity, by this also seeing the extent to which matter is capable of being subdivided.

One hundred cubic inches of a solution of common salt will be rendered milky, by adding to it a cube of silver, each side of which measures the $\frac{1}{4000}$ of an inch, dissolved in nitric acid. The atoms of silver have found their way into every particle of water, and there with the salt formed the white chloride of silver, which rendered the solution milky; that is, the small cube of silver has divided itself into at least one hundred trillions of parts,* a number which the seconds pendulum of a clock would beat in 3,168,969 years;

* $\frac{100000000000000}{31,556,928}$, that is, we multiply each of the small cubes by 1000, and divide by the number of seconds in a year.

and even yet we are not sure that we have approached the measure of an atom of silver, we have only reached the limits of our power of subdivision. A single grain of gold can be spread into a leaf containing 50 square inches, and this leaf may be readily divided into 500,000 parts, each of which is visible to the naked eye; and, by the help of a microscope which magnifies the area of a surface 100 times, the 100th part of each of these becomes visible; that is the 50 millionth part of a grain of gold will be visible, or a single grain of that metal may be divided into fifty millions of visible parts. But the gold which covers the silver wire used in making gold lace is spread over a much larger surface, yet it preserves, if examined by a microscope, a uniform appearance. It has been calculated that a single grain of gold under these circumstances would cover a surface of nearly thirty square yards.

If a bar of silver be gilded and then drawn out into a wire, the thread may be so fine that the gold covering one foot weighs less than the $\frac{1}{6000}$ of a grain; an inch of this wire will contain the $\frac{1}{72000}$th of a grain; this may be divided into 100 parts, each visible to the eye, and being covered by the $\frac{1}{7200000}$ or the one 7 million 2 hundred thousandth part of a grain of gold. Under a microscope, magnifying 500 times, each of these pieces may be subdivided by the eye into 500 parts, the gold retaining its original appearance, and showing no signs of dividing into its separate atoms; and yet the particle visible to the eye, that which covers the upper part of the wire, is $\frac{1}{7200000000}$ or the one seven thousand two hundred millionth of a grain.

If a pound of silver wire which contains 5760 grains, and a single grain of gold be melted together, the gold will be equally diffused through the whole silver, insomuch that if one grain of the mass be dissolved in aqua fortis, the gold will fall to the bottom. By this experiment it is evident that a grain of gold may be divided into 5761 visible parts, for only the 5761st part of the gold is contained in a single grain of the mass.

The diffusibility of parts of natural bodies is still more surprising. Odoriferous bodies, such as camphor, musk, and asafœtida are perceived to have a wonderful subtility of parts; for though they are perpetually filling a considerable space with odoriferous particles, yet these bodies are found not to lose any sensible part of their weight in a great length of time.

Again, it is said by those who have examined the subject with the best glasses, and whose accuracy of observation is not questioned, that there are more animals in the milt of a single codfish, than there are men on the whole earth, and that a single grain of sand is larger

than four millions of those animals. Now if it be admitted that these little animals are possessed of organized parts, such as a heart, stomach, muscles, veins, arteries, etc., and that they are possessed of a complete system of circulating fluids, similar to what is found in larger animals, we evidently approach the idea of the infinite reducibility of matter. It has indeed been calculated that a particle of the blood of one of these animalculæ is as much smaller than a globe one-tenth of an inch in diameter as that globe is smaller than the whole earth.

Captain Scoresby, in his account of the Greenland Seas, states that, in July, 1818, his vessel sailed for several leagues in water of a very uncommon appearance. The surface was variegated with large patches of a yellowish-green color. It was found to be produced by animalculæ, and microscopes were applied to examine them. In a single drop of the water examined by a power of 28,224 (magnified superficies) there were fifty in number on an average in each square of the micrometer glass of $\frac{1}{340}$th of an inch in diameter; and as the drop occupied a circle on a plate of glass containing 529 of these squares there must have been in this single drop of water taken at random out of the sea, and in a place not the most discolored, about 26,450 animalculæ. How inconceivably minute must the vessels, organs, and fluids of these animals be! A whale requires a sea to sport in; a hundred and fifty millions of these would have ample scope for their evolutions in a cup of water! We might adduce many more instances of a like kind, but these we doubt not will be sufficient to illustrate into what exceedingly minute parts matter is capable of being subdivided; parts so infinitely minute that they are evidently a rare fluid or gas, reducible doubtless to as rare a gas as the air we breath or to the much more subtile ether.

And since that all existing things are of a substance reducible to a fluid of the same density throughout, it remains to give a name to that existence. We have begun this illustration with the proposition that there is nothing existing in the universe but spirit, in different states of density and rarity. This, according to the literal meaning of the word spirit, and the consideration that all existing things are of a substance reducible to a state of air, seems to be an appropriate term. Others, however, may conceive of a more appropriate term to be applied to universal existence and the more appropriate the term the more worthy of being applied and universally adopted. Nor do we think it proper or just to deprive scientific men of their atomic theory, since they regard it as expedient for their purposes; but for our own part we consider chemical affinity to be all that is necessary.

Affinity, in the language of chemistry, is that force in virtue of

which two or more substances combine to form a compound body. This body exhibits properties different from those of the combining elements, and is called a chemical compound. Some substances display a greater affinity for each other than others do. For example, if we take a piece of chalk, and put it in a glass of water, in due time it will become softened, and if the water be stirred, the chalk will render it milky, but no change has taken place, for if it be let stand the chalk will sink to the bottom, or, if the water be evaporated, the chalk may be recovered unaltered. But had a little nitric acid been added to the water, bubbles of gas would have arisen to the surface, and the water would have become clear. The chalk was composed of lime and carbonic acid. The nitric acid having been added a combination of it takes place with the chalk, by which carbonic acid gas is set free, and escapes in bubbles from the surface of the water. If now the water be evaporated, chalk will no longer be found, but a transparent crystallized substance, called the nitrate of lime, very different from the lime or the nitric acid of which it is composed. Here then is an illustration of chemical affinity, and of chemical combination. Chemical action always evolves heat. The action which took place when the nitric acid came into contact with the chalk was analogous to that which takes place when a stick of wood is thrown on the fire, in which case heat and flame result, and the component parts of the wood enter into new combinations. This phenomenon of chemical affinity very plainly depends upon the principle of electrical attraction. We have before explained that electricity, light, and heat, are the same substance under different modes of action and manifestation; or rather that electricity might be regarded as the element of which light and heat are peculiar manifestations. This element pervades all bodies, which only require to be properly acted upon in order that it be made apparent in heat, or light, or both. Before the invention of lucifer matches the blacksmith, in order to kindle his fire, battered a nail on his anvil until it became red hot. Also, the savage who has no access to the means employed by civilized people for making a fire, educes that element by rubbing together two sticks of wood. Even water is pervaded by the active principle of combustion, and if thrown on a blazing fire in insufficient quantity tends not to quench but to strengthen the flame. All bodies in their natural condition are supposed to contain a certain amount of this electric fluid, and if they possess no more and no less than this natural amount they tend to remain in the same electric state. But if a body contains more than its natural amount it is said to be positively electrified, if less it is said to be negatively electrified. When a positively electrified body is brought near or

in contact with a negatively electrified one, attraction takes place between them, and the former discharges its surplus fluid into the latter to make up for its deficiency. Thus, thunder is caused by a positively electrified cloud coming near a negatively electrified one, which it attracts, and discharging into it its surplus electricity ; and the lightning is merely a manifestation of the electric fluid itself. But what causes the noise, it will be asked, which scares the children? The noise is caused by the electric discharge rushing through the air, and in its course displacing its own volume of the latter, thus causing a vacuum which the air from all sides rushes in to fill up. This combination of causes produces the thunder, but principally the air in rushing in to fill up the vacuum. When two bodies having more than their natural share of electricity come near or in contact with each other they tend to repel each other. This principle of electrical attraction and repulsion satisfactorily explains why some substances have a strong inclination to combine with each other chemically, while others exhibit little or no desire to do so. Now, in the example before us, the nitric acid and the chalk attract each other, one of the two containing a less amount of electricity than the other ; and thus, combining with each other, heat is evolved, and consequently gas is set free, and a chemical compound results. But the whole process of chemical combination is explainable on the principles of equilibrial diffusion of electricity, and the change and recombination of matter.

We have already endeavored to illustrate how that not only life but intelligence is inherent in all matter. Now that we have resolved all matter into spirit it will not be difficult to understand that proposition. The mind readily conceives of the principle of life as existing in all spirit, though it may not conceive of it so readily as existing in all matter. This, we think, arises in the main from the mind being habituated to think in a certain way concerning matter and spirit, and from a certain meaning which has been given to the word spirit in the ancient world, and especially in the Christian world, a meaning not original or literal, but collateral; not essential, but only attributive. For instance, the word spirit is commonly used to express the disposition, inclinations, state of heart or temper of a human being, although it is not often thought that the air the individual breathes is the literal spirit, or that the human being himself is a real, though not in his present state a literal, spirit. Also, the Deity is especially spoken of as a spirit, invisible and everywhere existing, which is very true, for an infinite being cannot be conceived by the mind, much less seen; and if a being be infinite he must be everywhere present; confessed as a being he cannot be nowhere.

But as we know that we exist and as we see the works of the Creator in nature all round us we know that he exists and exists everywhere. But the Deity, as everywhere existing, speaking both from a physical and moral point of view, must include bad as well as good, false as well as true God. What we have said hitherto with respect to the Creator we mean also of the Deity, for the Creator and the Deity we understand as synonymous terms for the same Being. The Deity, then, though unseen, must comprehend in Himself all that is seen to exist, and to be perpetuated in existence, in the two opposite aspects of evil and good in which it is seen by us, for the physical as well as the moral world presents existence in these two contrary aspects.

Some terrestrial climatal conditions and peculiarities noticed, as well as illustrations from the noxious and innoxious portions of the animal and vegetable kingdoms.

In the physical world we have the frigidly cold climates of the North and South polar regions,—the regions of eternal snow and ice, in which animal life cannot exist, and where if human beings try to live for a short season they must suffer the effects of intense, biting cold, and be every moment in danger of being frozen to death. We have also the parching torrid zone for twenty degrees immediately north and south of the equator, where men and animals suffer almost as much from the effects of the burning heat of a verticle sun, as in the polar regions from the effects of the intolerable cold. In contrast with these we have the mild climates of the temperate zones, where men enjoy the most delightful and refreshing breezes; the most beautiful scenery, and magnificent and sublime prospects of creation; the most lavish abundance of the good and useful productions of the earth, both animal and vegetable; where nature with benignant smile and outstretched hand seems to anticipate the various wants of man, and offers him in luxuriant abundance even more than his heart desires.

Certain parts of the earth are subject periodically to violent storms and tempests, hurricanes and tornadoes, which often render men lifeless or homeless, and cause a great deal of terror, inconvenience, and damage to the inhabitants of the districts where they prevail. The hurricane and tornado are destructive winds that prevail upon the American Continent, and in the West India Islands, causing terror and often death both to men and the inferior animals. Then there are the poisonous winds, the terrible harmattan, and sirocco, and samiel, and simoom, which prevail upon the continent of Africa, and

in the south-western countries of Asia, causing the inhabitants of these countries to quake and hide their heads, as well as often causing much destruction to life and property. In contrast with these we have the mild and genial breezes of our temperate climates, which are favorable to vegetation and to animal health; and, also, the trade-winds and monsoons which enable our seafaring men to navigate every sea and ocean, and to waft the products of the earth and of the arts from land to land.

In the animal kingdom we can contemplate the character and disposition displayed by the wild carnivorous animals of the land, the lion, the tiger, the hyena, the wolf, the bear, the jackal, the wild-cat, etc.; and the monstrous carnivora of the ocean, as the shark, the whale, the porpoise, and others innumerable, about which we know nothing. And among the reptile tribes we can contemplate the boa constrictor, the rattle-snake, the adder, the alligator, the crocodile, the anaconda, etc.; and also among ravenous birds, the eagle, the ostrich, the vulture, the hawk, the raven, etc. And on the other hand we can contemplate the character and disposition of the gentle and useful domesticated animals, the sheep, the cow, the horse, the goat, the deer, the camel, the dromedary, the tamed elephant, the ass, the dog, the cat, the pig; also, among birds, the pigeon, the hen, the goose, the duck, the guinea-hen, etc.

In the vegetable kingdom we are presented with two varieties, noxious and innoxious plants. Poisonous plants are numerous—indeed, they are to be found in most of the species, but some species contain many more than others. The order *Ranunculaceæ*, for example, of flowering plants, are almost all poisonous, and in some cases the poison is so virulent, that death speedily results from swallowing a very minute portion of the fruit. More than one poisonous principle abounds in this tribe; but of these the alkali termed by chemists *aconitum* is the most violent. It is a white substance something like flour to look at, and so frightfully poisonous that the twentieth part of a grain or even less is a fatal dose. Of all the various species of aconitum, that termed *aconitum ferox* is the most dangerous. This plant grows in the Himalaya Mountains, and was on one occasion made use of by the natives to rid themselves of their subjugators, the English. A few leaves of this plant having been thrown into a well so poisoned the water, that men or beasts drinking it were almost infallibly killed. Also, the Poppy tribe, especially cultivated in India, is that which supplies the opium which is doing so much to poison the Chinese and the Hindoos. Plants belonging to the order *Ranunculaceæ* are supplied with a watery, acrid, poisonous juice; but in plants of the Poppy tribe the juice is milky, from which milky

juice the luxury, opium, is expressed. Also, the great natural order *Umbellifera*, or umbrella, bearing plants, are of a dangerously doubtful character. Their chemical characteristics may be said to depend on the presence either of an odorous, volatile oil, or of a poisonous matter. Everybody knows how agreeably odorous is caraway seed, and most people are aware of the poisonous nature of the hemlock, and of the noxious character of the fools' parsley. The advantage when one is in an unknown country of being a practical botanist, so as to be able to refer a plant to a harmless or noxious kind, is considerable. It is related that when, during Anson's voyage, his crews disembarked in unknown places, the surgeon, fearful of poison, would not allow them to partake of any vegetables, except grasses, notwithstanding the scurvy was making great ravages among them.

The greater number if not all the members of the order *Cucurbitacæ*, or cucumber tribe, contain a bitter poisonous principle, presenting many degrees of intensity. In the colocynth it attains its maximum. In the ordinary cucumber the poisonous bitter principle is usually but little developed, never to the extent of being dangerous, although frequently enough to be disagreeable. In the melon, sugar is the principle secretion, nevertheless, the bitter principle so prevalent in the family is present in a small degree; it exists in the outside rind of the fruit, and to a still greater degree in the roots, which are violently emetic. Bryonia, another species, is still more violent in its poisonous action than the colocynth. Also, nearly all, if not all members of the order *Solanaceæ*, or night-shade tribe, contain a poison of a narcotic kind. To this order belong the common night-shade, henbane, tobacco, stramonium, and the mandrake plant. It is a highly dangerous family of plants, although one that ministers to our sustenance in the potato. Even this is not entirely free from poison; the fruits are notoriously poisonous, and even the juice of raw potatoes is highly injurious. The nutritive properties of the potato arise from the starch and gluten which it contains being mingled with so little of the poisonous principle, that the latter is destroyed by the cooking process to which the potatoes are subjected before eaten. The egg-plant and tomato belongs to this family; the former is occasionally eaten, the latter frequently and almost universally by the Spaniards, and now by the Americans. We may here remark that the vegetable substance, starch, is largely diffused throughout many poisonous plants, yet when separated from them it is invariably harmless. Of this we have a remarkable example in tapioca, which is nothing else than the baked starch extracted from the trunk of a tree, the jatropha manihot. The juice of this tree is so poisonous that they poison arrows with it; nevertheless, tapioca is

a delicate article of food. The common deadly night-shade, atropa belladonna, grows in shady places, and is an elegant though dangerous-looking plant. We may here remark that, as a general rule, most plants having dark-green foliage, and dark-colored flowers are poisonous. The belladonna bears a cherry-like fruit, which is sometimes incautiously eaten by children, and too often with a fatal result. In 1793 some orphans brought up in the *Hospice de la Piété* at Paris were employed in weeding a botanical garden. They happened to be attracted by the tempting-looking fruit of the belladonna plant, of which they ate a considerable quantity. Fourteen of these unfortunate children died in consequence only a few hours afterwards. This lamentable catastrophe justifies the generic name atropa, from Atropos, one of the fates, who was supposed to cut the thread of life. The specific name, belladonna, signifies beautiful lady, and is dependent on the circumstance that the Italian ladies used the distilled water of this plant as a cosmetic. They foolishly imagine that it improves their complexions. The mandrake is a species very nearly allied to the belladonna. It grows in the South of Europe, and in dark places. This plant, known and celebrated from times of great antiquity, was employed by the sorcerers of ancient days to produce narcotism, and disordered vision. Its roots are large, often two-pronged, whence its fancied resemblance to the limbs of a man. This plant has, from very early periods of history, been regarded with much superstitious dread, which has probably arisen partly from its poisonous properties, and partly from its large and irregularly shaped roots, which at times approximate to the uncouth form of a man. Shakespeare writes: "And shrieks the mandrakes torn out of the earth, that living mortals hearing them run mad." The notion that prevailed in days gone by regarding the sounds of complaint uttered by the mandrake when being rooted up appears to have been widely entertained by the ignorant. Misfortune of the direst kind was believed to be the portion of any one bold or rash enough to engage in disturbing the mandrake in his earthbed. An old English proverb says: "He who gathereth the mandrake shall die; blood for blood is his destinie." It is supposed that the mandrakes mentioned in some parts of the Old Testament were not the same as the plant known to us by this name, but that under this term reference is had to the fragrant but insipid fruit of the *Cucumis Dudaim*, a plant which is cultivated in the gardens of the East for the odor it exhales. The mandrake is also confounded with the sleep-apple, a mossy excrescence on the wild rose, which when laid under the pillow was supposed not to allow any one to wake until it was taken away. This property of stupefying doubtless arose from its narcotic properties.

Henbane is a European plant belonging to this genus under consideration. It is a biennial plant, and grows amidst the ruins of buildings, in the neighborhood of habitations. Its stem is studded with a cotton-like substance, and it constantly exhales a repulsive odor. Its corolla is palish yellow, veined with purple. It owes its peculiar properties to the presence of a peculiar alkali. Its action is far less powerful than that of belladonna; nevertheless it may cause death if eaten. A German physician relates that, on a certain occasion, the Benedictine monks of the convent of Rhinon were presented with a salad in which the root of chicory, as was thought, had been placed. Instead, however, of being of chicory the root was of henbane. After the repast the monks went to bed. Symptoms of poisoning soon commenced; the monks were all stupefied. The time for matins or morning prayers arrived, and one monk was so fast asleep that his fellows supposed him to be dying, and under this impression administered to him extreme unction. The other monks went to chapel, but they had much better have stayed away; some of them could not even open their eyes, much less read. The vision of others was so disordered that they thought insects were crawling on their books, and employed themselves in blowing and brushing the intruders off. Others instead of praying uttered nonsense. In the end all the monks got well, even the one supposed to be dead; but one poor individual, a tailor, could not thread his needle for a long time afterwards, so disordered was the state of his vision. Instead of one needle the tailor saw three, and as he could not tell the real needle from its ghostlike duplicates, there was slight chance of his threading it. This anecdote illustrates better than any mere description the physiological action of henbane.

The stramonium is another plant of the Night-shade order. It was unknown to the ancient Greeks and Romans, but is now common in Europe, having been brought from Central Asia in the Middle Ages by the wandering gipsies. Its active principle is called *daturine*, which exists in the leaves and in the seeds. This principle is a potent narcotic alkaloid, resembling in its quality and the effects it produces the alkaloids yielded by the henbane and belladonna. It is a deadly poison, and among the most striking of its properties may be named the effect it produces on the pupil of the eye, namely, that of causing it to dilate strongly. Nevertheless the stramonium, or the thorn-apple as it is sometimes called, like many other poisonous plants, has its beneficial uses. In Cochin China a decoction made of its leaves is considered an effectual remedy for hydrophobia, the terrible malady resulting from the bite of a mad dog; but this by some is considered very doubtful. In small quantities *daturine* is very

useful as a pain-soother or anodyne, and as an antispasmodic. Persons suffering from asthma have found relief from smoking the dried leaves of the plant, or inhaling an infusion made by pouring boiling water on the seeds or leaves. Great care, however, should be used lest the patient take an overdose. Tobacco is another plant belonging to this natural order, and the use or abuse of which is too well known to require comment here.

The order *Euphorbiaceæ*, to which the castor-oil plant belongs, is mainly made up of very dangerous plants. The greater number of its species contain a milky, acrid, and poisonous juice, which often holds dissolved, in addition to other principles, a peculiar elastic substance, and occasionally a coloring matter. The species *Euphorbiæ*, the type of this natural order, presents an aspect of great variety. The manchineel is a large tree of intertropical America, celebrated for its peculiarly poisonous qualities. If accounts are to be trusted it is certain death for an individual to sleep under the shade of one of this species; and even rain which touches the skin after having fallen upon the leaves of this tree raises a blister. The manchineel tree also bears tempting looking fruit, from which an agreeable odor is exhaled, but even a small portion if eaten produces certain death.

The order called *Loganiaceæ* is also largely represented by poisonous plants. The sub-family strychnos contains the most remarkable species of this natural order. The greater number possess in their bark and seeds two alkaline principles, termed respectively strychnine and brucine. The action of these on the animal organism is extremely violent. The *Strychnos-tiente* is a climbing plant of the Javanese forest, with the juice of which the natives poison their arrows. It is the famous Upas and is often confounded with another Javanese vegetable poison, obtained from the *Antiaris Toxicaria*, a tree belonging to the natural family Artocarpeæ. The ourari, or wourali, is also a poison furnished by another member of the same natural family, the strychnos toxifera, a native of Guiana. The Indians who dwell on the banks of the Orinoco, the Ipura and the Rio Negro, employ this substance as a poison for their arrows. The nux vomica tree, or koochla tree of India, is perhaps the most valuable of this tribe, furnishing an alkaloid, strychnine, very poisonous, but of great use in medicine.

The natural order Apocynaceæ, which name Greek scholars will recognize, and is significant of the dog-killing power of certain of its species, is also a dangerous tribe. The plants belonging to this order are usually trees or shrubs, seldom herbs, and for the most part containing a milky juice. This natural order is rather frequent in tropical climates, but the number of species is very inconsiderable in

our latitudes. The milky, acrid and bitter juice which flows, from many of these plants imparts to the family an emetic and purgative tendency which in some species is deleterious. The bark of many of the dog-banes contains a bitter astringent principle; in other species a tinctorial matter predominates. The seeds of many genera are poisonous. Many species of the genus cerbera, as well Asiatic as American, possess narcotic acrid seeds, sometimes poisonous, but useful as a remedy for the bites of serpents. The cerbera ahouai secretes an exceedingly poisonous juice, which is employed in Brazil for the purpose of stupefying fish. The poisonous tanghin is a native of Madagascar, about thirty feet in height, yielding a dropaceous fruit which contains an oily seed, and is employed by the natives judicially in the trials by poison. The accuser makes his complaint to the judge, who refers it to an official denominated the ampanan-ghin, and whose office is the double one of priest and executioner. If sufficient presumptive evidence of crime is forthcoming, the tanghin is administered and the guilt or innocence of the accused is judged by the result. If he recover from the effects of the poison he is declared innocent. If he die he is considered guilty and his goods are forfeited. Even the natural order of endogenous plants to which the grasses and cereals belong is not without its poisonous species. The darnel grass is strongly poisonous owing to the presence of the chemical principle loline. Festuca quadredentata, a species which grows abundantly in Peru, is mortal to cattle which graze upon it. Another species balmogrostis, is juiceless, and, when swallowed by animals, injures their throats, rather on account of the flinty matter with which it is profusely coated than because of any poisonous principle it contains. The orders here mentioned contain each many genera, species, and varieties, and what we have adduced as to poisonous vegetables gives only a very general idea of their number and varieties in the vegetable kingdom.

But this abstract from the vegetable kingdom concerning noxious plants, together with what we have shown concerning the climatic conditions and changes of the earth, and the character of the savage carnivorous portion of the animal kingdom, should be fully sufficient to show the fallacy that underlies the effort of Dr. Dick and others to demonstrate that the earth and all things were created for the especial use and benefit of mankind.

Having taken a glance at the noxious portion of the vegetable world, it will be proper, for the purpose of contrast, to give a passing notice to the innoxious portion of it. With this part of the vegetable kingdom people are better acquainted than they are with the other. In this part are contained the plants which furnish the food for

the human race and for the inferior orders of animals. It will not be necessary, therefore, to give any extended description of it; for what everybody knows to some extent, or may know extensively by a little observation, they need not be told about in detail in such a treatise as this.

All seed-bearing plants are classed by botanists under the two general natural divisions of *exogenous* plants, or those which grow or increase by external depositions of their substance; and *endogenous* plants, or those which grow or increase by internal depositions of their substance. Of the former class the oak, the elm, and most large trees are specimens; of the latter the palm tree, the bamboo, the sugar cane and a stalk of wheat, rye or oats may serve as specimens. Most of the vegetables which minister to our sustenance belong to the endogenous division. Thus, all the species of grasses are endogenous. The smaller species clothe our fields with verdure and afford nourishment to cattle; the larger species furnish us with bread and sugar, for the reader may remember that not only the species commonly called grass which the cattle graze upon, but wheat, barley, rice, maize, oats, rye, and even the sugar-cane, the bamboo, and the palm-tree, are, botanically considered, grasses. Is it not wonderful that mankind subsists chiefly on grass! Linnæus, the celebrated Swedish naturalist, has remarked that the cow eats 276 species of plants, and rejects 218; the goat eats 449, and rejects 126; the sheep eats 347, and rejects 141; the horse eats 262, and rejects 212; and the hog, more nice in its taste than any of the rest, eats but 72, and rejects all the rest. Whether these animals reject certain plants on account of certain poisonous principles which they possess, or simply because of a peculiar nicety of taste in themselves, we shall leave to be determined by others.

Grasses are not excluded from any quarter of the globe, but the number of individuals, though not of species, is greatest in the northern temperate regions; also, they have become so transported from one region of the earth to another, that it seems now quite impossible to determine with certainty the native regions of many species. Oats and rye are mostly cultivated towards the north; barley and wheat in more temperate regions; maize is a staple product of America, and rice of Asia. The seed or rather the fruit of these afford sustenance to the greater portions of the human race. The analogy of the chemical composition of grasses as well as their external characters indicates their mutual affinities pointing out the whole family as essentially nutritive vegetables. The grain or seed contains starch or gluten in abundance, mixed with a certain quantity of sugar, the amount of which increases toward the period of germination; they

also contain a little fixed oil and various saline matters. Innocuity and the presence of nutritive principles are the grand characteristics of grasses physiologically considered. The sugar-cane is supposed to be a native of South-eastern Asia. It was unknown to the ancient Greeks and Romans, as also was sugar. From South-eastern Asia the cane was introduced into Arabia, and it thence was introduced into Egypt, Asia-Minor, Sicily, Italy, and Spain. From the latter country it was transported to St. Domingo and the mainland of America. It is cultivated to a considerably large extent and furishes much to the benefit of the human race. The corn-bearing grasses are appropriately denominated cereals, or plants of Ceres, the goddess of corn, among the ancient Greeks and Romans. Amongst these wheat takes the first rank. It is more nutritive than any of the others, and is adapted to climes and tracts of greater diversity of character. Rice may be correctly described as a tropical water-grass, the conditions necessary to its growth being a hot atmosphere, and a swampy soil. These conditions exist in Asia, where rice is cultivated to a large extent, and in the southern temperate and tropical climates of America. The conditions necessary to the growth of rice are unfavorable to the health of man. The palm tree is a plant which furnishes a number of useful products, such as oil, wine, dates, cocoa, nuts, hemp, astringent matter, sugar, and spirit; also an excellent fruit is furnished by the banana a species of palm tree. The maple tree affords a large amount of sugar to the people of the United States and Canada, who prepare and use that article to a great extent. The various species of apple tree furnish a fruit which is used in a variety of forms for human food. Also, the various species of peaches, plums, cherries, gooseberries, prunes, apricots, pineapples, strawberries, raspberries, currants, grapes, etc., as well as the various species of wild fruits, too numerous indeed to mention here, and of a wholesome nature, all afford their stores of nutritive food for the sustenance of man. Also, if we enumerate the roots, bulbs, and tubers, which are cultivated by the farmer and gardener, such as parsnips, carrots, beets, turnips, potatoes, etc., we shall find that a large store is furnished from this source, also, for the maintenance of man and beast.

If we enumerate the forest trees we have the various species of the oak, fir, pine, cedar, ash, larch, walnut, hickory, elm, birch, hemlock, etc., which all contribute to supply man's wants, if not in the way of food, yet in other important ways.

Then there are the various species of flowering plants which adorn the fields and gardens, which are not of a poisonous nature, and which add such varied and diversified beauties to the prospect

before us. During the summer season, when all nature is clothed with verdure, when the trees and plants are blooming with flowers and blossoms of varied hue, when the birds are warbling their melodious notes, when the various species of corn are growing and ripening in the fields, when the various kinds of domestic animals are seen to gambol and frolic about the lawns, and nature seems to smile benignantly in bringing forth an abundant supply for the wants of all her animate offspring, then does not our earth seem a present heaven!

Illustrations from the character and practices of the Races of Mankind: first, from the Savage and Semi-civilized races.

If we take a survey of the various tribes of mankind we find a great variety of character and disposition displayed. The two extremes of evil and good are here comprised. Man is undoubtedly the most savage and brutal of all terrestrial animals, but is susceptible of becoming the most gentle, kind and intelligent. In dealing with this part of our subject we shall first take a glance at the state of the uncivilized races of mankind, and at those nations by whom terrible scenes of barbarity are wont to be enacted and terrible deeds of atrocity are wont to be perpetrated, and then we shall take a glance at the races called civilized, both of the past and present.

Contemplate with us the character and disposition of savage tribes, of the New Zealanders, the South Sea Islanders, the Australian Bushmen, the Caffres, and numerous other African tribes; of the numerous nations of Indians of North and South America, of the ancient Mexicans, and of the Asiatic tribes of Huns, Tartars, etc., and what a horrid and disgusting picture of human cruelty, brutality, barbarism, and savage malignancy will be presented to the mind. The most prominent feature which appears in the character of savage nations is their disposition for war, and to inflict revenge for real or supposed injuries. The dismal effects of the principle of hatred directed toward human beings, the disposition to be engaged in war continually, and the savage ferocity of the human mind when unrestrained by moral and prudential considerations, are nowhere more strikingly displayed than in the islands scattered through the wide expanse of the Pacific and Indian oceans. Of the truth of those positions we have but too many melancholy examples, in the reports of missionaries and in the journals which have been published by navigators, from which we select a few. The first instance we shall adduce relates chiefly to the inhabitants of New Zealand. Captain Cook remarks in relation to those islanders: "Their public conten-

tions are frequent, or rather perpetual; for it appears, from their number of weapons and dexterity in using them, that war is their principal profession. The war-dance consists of a great variety of violent motions and hideous contortions of the limbs, during which the countenance also performs a part; the tongue is frequently thrust out to an incredible length, and the eyelid so forcibly drawn up, that the white appears both above and below as well as on each side of the iris, so as to form a circle around it; nor is anything neglected so as to render the human shape frightful and deformed. To such as have not been accustomed to such a practice they appear more like demons than men, and would almost chill the boldest with fear; at the same time they brandish their spears, shake their darts, and cleave the air with their patoopatoos. To this succeeds a circumstance almost foretold in their fierce demeanor, horrid and disgraceful to human nature, which is cutting to pieces, even before being perfectly dead, the bodies of their enemies, and after dressing them on a fire, devouring the flesh, not only without reluctance, but with peculiar satisfaction." One cannot well conceive a more striking idea of the workings of pure malevolence, and of the rage and fury of infernal fiends, than the picture here presented of those savage islanders. These people, so far as European power and civilization has not reached them, live under perpetual apprehension of being destroyed by each other; there being few of these tribes who have not, as they believe, received wrong from some other tribe, which they are continually on the watch to avenge, and the desire of a good meal is no small incitement. "Many years will sometimes elapse before a favorable opportunity happens, but the son never loses sight of an injury that has been done his father. Their method of executing their horrible designs is by stealing upon the adverse party in the night, and if they find them unguarded, which is very seldom the case, they kill every one indiscriminately, not even sparing the women and children. When the massacre is completed they either feast and gorge themselves on the spot, or carry off as many of the dead bodies as they can, and devour them at home with acts of brutality too shocking to be described. If they are discovered before they execute their bloody purpose, they generally steal off again, and are sometimes pursued and attacked by the other party in their turn. To give quarter or to take prisoners make no part of their military law, so that the vanquished can save their lives only by flight. This perpetual state of war, and destructive method of conducting it, operates so strongly in producing habits of circumspection, that one hardly ever finds a New Zealander off his guard, either by night or by day." The implacable hatred which these savages entertain for

each other is illustrated in the following short narrative, also by Captain Cook. "Among our occasional visitors was a chief called Kahoora, who, as I was informed, headed the party that cut off Captain Furneaux's people, and himself killed Mr. Dowe, the officer who commanded. To judge of the character of Kahoora from what I heard from many of his countrymen he seemed to be more feared than beloved among them. Not satisfied with telling me that he was a very bad man, some of them even importuned me to kill him, and I believe they were not a little surprised that I did not listen to them, for, according to their ideas of equity, this ought to have been done. But if I had followed the advice of all our pretended friends, I might have extinguished the whole race; for the people of each village or hamlet by turns applied to me to destroy the others. One would have almost thought it impossible that so striking a proof of the divided state in which these people lived could have been assigned."

Similar dispositions are displayed by the inhabitants of almost all the other islands of the South Seas. The influence of Christianity does not as yet prevail very extensively among them. The following description is given by M. de la Perouse of the inhabitants of Maouna Orjolava, and the other islands in the Navigator's Archipelago:—"Their native ferocity of countenance always expresses either surprise or anger. The least dispute among them is followed by blows of sticks, clubs, or paddles, and often, without doubt, costs the combatant's their lives." With regard to the women he remarks:—"The gross effrontery of their conduct, the indecency of their motions, and the disgusting offers which they make of their favors rendered them fit mothers and wives for the ferocious beings that surrounded us.

The natives of New Caledonia are a race of a similar description. Captain Cook describes them as apparently a good-natured people, but subsequent navigators have found them to be the very reverse of what he described them,—as ferocious in the extreme, addicted to cannibalism, and to every barbarity shocking to human nature. The French navigator, the Admiral D'Entrecasteaux, in his intercourse with these people received undoubted proof of their savage disposition, and of their being accustomed to eat human flesh. Speaking of one of the natives who had visited his ship, and had described the various practices connected with cannibalism, he says: "It is difficult to depict the ferocious avidity with which he expressed to us that the flesh of their unfortunate victims was devoured by them after they had broiled it on the coals. This cannibal also let us know that the flesh of the arms and legs was cut into slices, and that

they considered the most muscular parts a very agreeable dish. It was then easy for us to explain why they frequently felt our arms and legs, manifesting a violent longing; they then uttered a faint whistling which they produced by closing their teeth, and applying to them the tip of the tongue; afterwards opening their mouth they smack their lips several times in succession. The characters of the islanders now described may be considered as common to the inhabitants of the New Hebrides, the Friendly Islands, the Marquesas, the Sandwich Islands, New Guinea, New Britain, the Ladrones, and almost all the islands that are scattered through the vast expanse of the Pacific Ocean. Mr. Williams, a missionary to the Fijian cannibals, remarks among other things: "Some captives who had been stunned by the fearful blows of their heavy war clubs were cast into hot ovens, and when the fierce heat brought them back to consciousness and urged them to fearful struggles to escape, the loud laughter of the spectators bore witness to their joy at the scene." Captain Cook, in describing the natives of New Zealand, again remarks: "The inhabitants of the other islands of the South Seas have not even the ideas of indecency with respect to any object or to any action." Of the natives of Otaheite he declares: "They are all arrant thieves, and can pick pockets with the dexterity of the most expert London blackguard." When describing the societies distinguished by the name of Arreoy he declares as a characteristic of the female part of the community: "If any of the women happen to be with child, which in this manner of life happens less frequently than in ordinary cases, the poor infant is smothered the moment it is born, that it may be no incumbrance to the father, nor interrupt the mother in the pleasures of her diabolical prostitution." Another circumstance mentioned by the same navigator exhibits their former moral character in a still more shocking point of view. On the approach of war with any of the neighboring islands, or on other important occasions, human sacrifices were a universal practice. "When I described," says Captain Cook, "the Native at Tongabatoo, I mentioned that on the approaching sequel of that festival we had been told that ten men were to be sacrificed. This may give us an idea of the extent of the religious massacres on that island. And, though we should suppose that never more than one person is sacrificed on any single occasion at Otaheite, it is more than probable that these occasions happened so frequently as to make a shocking waste of the human race, for I counted no less than forty-nine skulls of former victims lying before the Morai, where we saw one more added to the number. And, as none of these skulls had as yet suffered any considerable change from the weather, it may be inferred

that no great length of time had elapsed since this considerable number of unhappy wretches had been offered on the altar of blood." He likewise informs us that human sacrifices were more frequent in the Sandwich than in the other islands. "These horrid rites," says he, "are not only had recourse to upon the commencement of war and preceding great battles, and other signal enterprises, but the death of any considerable chief calls for the sacrifice of one or more tow-tows, that is, vulgar or low persons, according to his rank, and we were told that ten men were destined to suffer on the death of Terreeoboo, one of their great chiefs.

With respect to the North American Indians (who have now almost disappeared from the Eastern States and Canada) it is the uniform description given of them by all who have travelled or lived among them in their wild state that, if we except hunting, war is the only employment of the men, and every other concern is left to the women. Their most common motive for entering into war is either to revenge themselves for the death of some friend, or to acquire prisoners who may assist them in their hunting and whom they adopt into their society. In these wars they are savage and cruel to an incredible degree. They enter unawares the villages of their foes, and while the flower of the nation are engaged in hunting, massacre all the children, women, and helpless old men, or make prisoners of as many as they can manage. But, when the enemy is apprised of their design, and is coming on in arms against them they throw themselves flat on the ground among the withered herbs and leaves which their faces are painted to resemble. They then allow a part to pass unmolested, when all at once, with a tremendous shout, rising up from the ambush, they pour a storm of musket-balls on their foes. If the force on each side continues nearly equal, the fierce spirits of these savages, inflamed by the loss of friends, can no longer be restrained. They abandon their distant war, they rush upon one another with clubs and tomahawks in their hands, magnifying their own courage and insulting their enemies. A cruel combat ensues; death appears in a thousand hideous forms, which would congeal the blood of civilized people to behold, but which increases the fury of these savages. They trample, they insult over the dead bodies, tearing the scalp from the head, wallowing in their blood like wild beasts, and sometimes devouring their flesh. The flame of war rages on until it meets with no resistance, then the prisoners are secured, whose fate is a thousand times more dreadful than theirs who have died in the field. The conquerors set up a hideous howling to lament the friends they have lost. They approach to their own village, the women with frightful shrieks come

out to mourn their dead brothers, or their husbands. An orator proclaims aloud a circumstantial account of every particular of the expedition, and, as he mentions the names of those who have fallen, the shrieks of the women are redoubled. The last ceremony is the proclamation of victory; each individual then forgets his private misfortune, and joins in the triumph of his nation; all tears are wiped from their eyes; by a transition unaccountable to us, they pass in a moment from the bitterness of sorrow to an extravagance of joy. As they feel nothing but revenge for the enemies of their nation, their prisoners are treated with extreme cruelty. The punishments inflicted on such prisoners as are doomed to death are too shocking and horrible to be exhibited in detail; one plucks out the nails of the prisoner by the roots; another takes a finger into his mouth and tears off the flesh with his teeth; a third thrusts the finger mangled as it is into the bowl of a pipe, made red hot, and smokes it as if it were tobacco; they then pound his toes and fingers to pieces between two stones; they apply red hot iron to his mangled body; and thus they continue for several hours, and sometimes for a whole day, until they penetrate to the vital parts and completely exhaust the spring of life. Even the women, forgetting the human as well as the female nature, and transformed into something worse than the reputed Furies, frequently outdo the men in this scene of horror, while the principal persons of the tribe sit round the stake to which the prisoner is fixed, smoking and looking on without betraying the least emotion. And, what is quite as remarkable, the prisoner himself endeavors to brave his torments with a stoical apathy; "I do not fear death" (he exclaims in the face of his tormentors), "nor any kind of tortures; those that fear them are cowards, they are less than women. May my enemies be confounded with despair and rage! Oh! that I could devour them and drink their blood to the last drop!" Such is a faint picture of the ferocious dispositions which, with a few modifications, have characterized the Indians of North and South America, and which we have reason to believe yet characterize those who are beyond the reach or influence of the white races. We ourself, have some experience of the character of the Indians who live in the neighbor hood of the whites; for happening occasionally to be where they were, and observing their noisy conversation and their unruly gestures, we felt considerably alarmed for our own safety, and did not wish to be among them longer than our duties required.

If we cross the Atlantic and land on the shores of Africa we shall find the inhabitants of that continent exhibiting dispositions no less cruel and ferocious. Bosman relates the following instances of

cruelties practiced by the Adomese Negroes, inhabiting the banks of the Praa or Chamah River: "Anqua, the king, having in an engagement taken five of his principal Antese enemies prisoners wounded them all over: after which with a more than brutal fury, he satiated, though not tired himself, by sucking their blood at the gaping wounds: but bearing a more than ordinary grudge against one of them he caused him to be laid bound at his feet, and his body to be pierced with hot irons, gathering the blood that issued from him in a vessel, one half of which he drank, and offered up the rest to his god. On another occasion he put to death one of his wives and a slave, drinking their blood also, as was his usual practice with his enemies."* Dispositions and practices quite as abominable are exhibited in the kingdom of Dahomey near the gulf of Guinea. An immolation of human victims for the purpose of watering the graves of the king's ancestors, and of supplying them with servants of various descriptions in the other world, takes place every year, at a grand festival which is held generally in April or May. The victims are generally prisoners of war reserved for the purpose, but should there be a lack of these, the number, between sixty and seventy, is made up from the most convenient of his own subjects. The immolation is not confined to this particular period: for at any time, should it be necessary to send an account to his forefathers of any remarkable event, the king despatches a courier to the shades, by delivering a message to whomsoever may happen to be near him, and then ordering his head to be chopped off immediately. It is considered an honor when His Majesty personally condescends to become the executioner in these cases, an office in which the king prides himself in being expert. The governor was present on one occasion, when a poor fellow, whose fear of death outweighing the sense of the honor conferred upon him, on being desired to carry some message to his father declared on his knees that he was unacquainted with the way, on which the tyrant vociferated, "I'll show you the way," and with one blow made the head fly many yards from his body, highly indignant that there should have been the least expression of reluctance. † On the thatched roofs of the guard-houses which surround the palace of this tyrant are ranged, on wooden stakes, numbers of human skulls; the top of the wall which encloses an area before it is stuck full of human jaw-bones, and the path leading to the door is paved with skulls.

In the Kingdom of Ashantee similar practices uniformly prevail. "When the king of this country," says Dupuis, "was about to open the campaign in Gaman, he collected together his priests to invoke

* Dupuis Journal in Ashantee.

† MacLeod's Voyage to Africa.

the Royal Fetische (idol) and perform the necessary orgies to ensure success. These ministers of superstition sacrificed thirty-two male, and eighteen female victims, as an expiatory offering to the gods; but the answers from the priests being deemed by the council as still devoid of inspiration, the king was induced to make *a custom* at the sepulchres of his ancestors, where many hundreds bled. This, it is affirmed, propitiated the wrath of the adverse god." The same king when he returned from the campaign, having discovered a conspiracy, decreed that seventeen of his wives along with his own sister should be strangled and beheaded. His sister's paramour, and all those of the same party, were doomed to the most cruel deaths at the grave of the king's mother. While these butcheries were transacting the king prepared to enter the palace; and in the act of crossing the threshold of the outer gate was met by several of his wives whose anxiety to embrace their sovereign lord impelled them thus to overstep the boundary of female decorum in Ashantee; for it happened that the king was accompanied by a number of his captains, who accordingly were compelled to cover their faces with both their hands, and fly from the spot. This is said to have enraged the monarch, though his resentment proceeded no further than words, and he returned the embraces of his wives; but another cause of anger soon after occurred, and he was inflamed to the highest pitch of indignation, and in a paroxysm of anger, caused these unhappy beings to be cut into pieces before his face, giving orders at the same time to cast the fragments into the forest to be devoured by birds and beasts of prey, nor did the atonement rest here; for six more unhappy females were impeached of inconstancy, and they also expiated their faults with their lives. Like another Ulysses, His Majesty then devoted himself to the purification of his palace, when to sum up the whole horror of these bloody deeds, two thousand wretches selected from the Gaman prisoners of war, were slaughtered over the royal death-stool in honor of the shades of departed kings and heroes. We are not to imagine that such fiendish and malignant dispositions are confined to kings and the ruling order of society. Whenever such ferocious passions are displayed among barbarous chieftains, they pervade to a greater or less extent the great mass of the people, and almost every one in proportion to the power with which he is invested perpetrates similar atrocities. The following instance, selected from Major Gray's "Travels in Africa, in 1824," will corroborate this position, and also show for how many acts of cruelty and injustice the abettors of the infamous traffic in slaves are accountable. The Kaartan force which the Major accompanied had made 107 prisoners, chiefly women and children, in a predatory excursion into Bondoo, for the purpose

of obtaining a supply of slaves. The following is an account of the manner in which they were dragged along: "The men were tied in pairs by the necks, their hands secured behind their backs; the women by the necks only, but their hands were not left free from any sense of feeling for them, but in order to enable them to balance their immense loads of corn or rice, which they were obliged to carry on their heads, and their children on their backs." "I had an opportunity," says Major Gray, "of witnessing, during this short march, the new-made slaves, and the sufferings to which they are subjected in their first state of bondage. They were hurried along, tied, at a pace little short of running, to enable them to keep up with the horsemen, who drove them on as Smithfield drovers do fatigued bullocks. Many of the women were old, and by no means able to endure such treatment. One in particular would not have failed to excite the tenderest feelings in the breast of any one, save a savage African. She was at least sixty years old, in the most miserable state of emaciation and debility, nearly doubled together, and with difficulty dragging her tottering limbs along. To crown the heart-rending picture, she was naked save from her waist to about half way to the knees. All this did not prevent her inhuman captor from making her carry a heavy load of water, while with a rope about her neck he drove her before his horse; and whenever she showed the least inclination to stop he beat her in the most unmerciful manner with a stick." The inhabitants of all the interior of Africa, and round its northern, eastern and western coasts, display in almost every tribe the most inhuman and depraved dispositions. The Algerines are characterized as the most cruel and dangerous pirates, base, perfidious and rapacious, to the last degree. No oaths or ties, human or divine, will avail to bind them, when their interest interferes. Whatever respect they pretend to pay to their prophet Mahomet, gold is the only idol which they worship. The emperors of Morocco are notorious as a set of rapacious and blood-thirsty tyrants, who have lived in a state of habitual warfare with Christian nations, and in the perpetration of deeds of injustice and cruelty. The Gallas, on the borders of Abyssinia, are a barbarous and warlike nation. They are hardy and of a ferocious disposition, trained to the love of desperate achievements, taught to believe that conquest entitles them to the possession of whatever they desire, and to look upon death with the utmost contempt; and, therefore, in their wars they fight with the most determined resolution, and neither give nor expect any quarter. The inhabitants of Adel, too, are of a warlike disposition, and most frequently live in enmity with those around them. The Feloops are gloomy and unforgiving in their tempers, thirsting for vengeance,

even in the hour of dissolution, and leaving to their children to avenge their quarrels. The inhabitants of the grain coast, especially the Mulattoes, are said to be a most abandoned set of people. The men are drunkards, lewd, thievish and treacherous, and the women are the most abandoned prostitutes, sacrificing themselves at all times, and to all sorts of men, without the least degree of restraint.*

The natives of Ansico, which borders on Angola, live by plundering all who happen to fall in their way, some of whom they kill, and others they keep slaves. The Boshemen are land pirates, who live without laws and without discipline; who lurk in thickets to watch the passage of travellers and shoot them with poisoned arrows, in order to seize their cattle. "The natives of Congo," says M. de la Brosse, in his "Travels along the Coast of Angola," 1793, "are extremely treacherous and vindictive. They daily demanded of us some brandy for the use of the king and the chief men of the town. One day this request was denied, and we had soon reason to repent it; for all the English and French officers having gone to fish on a small lake near the sea-coast, they erected a tent for the purpose of dressing and eating the fish they had caught, when amusing themselves after the repast, seven or eight negroes, who were the chiefs of Loango, arrived in Sedans, and presented their hands according to the custom of the country. The negroes privately rubbed the hands of the officers with a subtle poison, which acts instantaneously, and accordingly five captains and three surgeons died on the spot." The Moors are characterized by Mungo Park as having cruelty and low cunning depicted on their countenances.

Their treachery and malevolence are displayed in their plundering excursions against the negro-villages. Without the smallest provocation, and sometimes under the fairest professions of friendship, they will seize upon the cattle of the negroes, and sometimes upon the people themselves. The Bedouins are plunderers of the cultivated lands and highway robbers; they watch every opportunity of taking vengeance on their enemies, and their animosities are transmitted as an inheritance from father to children. Even the Egyptians, who are farther advanced in civilization than the tribes to which we have alluded, are characterized by excessive pride, vindictive tempers, inordinate passions, and various species of moral turpitude. There is a trait in the character of the women of this nation, adverted to by Sonini in his "Travels in Egypt," which is particularly odious and horrible. On discovering any partiality in their husbands for other females, they are transported into a most unbounded and jealous fury. Such are their deceit and vindictiveness on these occa-

* Cook's Universal Geography.

sions, that they instil into the blood of their faithless or suspected husbands a slow and mortal poison. They meditate their revenge in silence, and they enjoy the diabolical satisfaction of taking off an unhappy being by a lingering death. It is said their own persons supply the horrid means of perpetrating their malicious designs on their husbands, and that they mix with their aliment a certain portion of an ingredient of a poisonous nature, which infallibly induces a slow languor and consumption, and in time brings the wretched victims to the grave.

The symptoms of the disease are dreadful. The body desiccates, the limbs become exceedingly weak, the gums rot, the teeth loosen, the hair falls off, and at length, having dragged out a miserable and tortured existence for a whole year or more, the unhappy being dies in the most excruciating torments.

If we pass from Africa to the regions of Asia we shall find its inhabitants of a similarly depraved character, and practicing similar principles in all the various ranks of its population. Here tyranny in its most degrading and cruel form reigns supreme and uncontrolled over a superstitious, a degraded, and an idolatrous race of mankind. The following, in relation to a petty tyrant of Persia, may serve as a specimen of Asiatic tyranny: "The governor, Zulfecca Khan, is pronounced to be a cruel and unprincipled tyrant; unfortunately for the people he has the ear of the sovereign, and they have no resource against his rapacity. He pays to the Crown 7000 tomauns* a year, but it is asserted that he collects from the district 100,000. His oppression was so grievous that the inhabitants, wearied out, went in a body to the king to complain; but His Majesty only referred them back to their tyrant, who, exasperated at their boldness, wreaked upon them a cruel vengeance. It is said he maimed and put to death a thousand of both sexes, cutting off the hands, putting out the eyes, and otherwise mutilating the men; and cutting off the noses, ears, and breasts of the women. The people, desponding and broken-hearted after this, paid in so far as they were able the rapacious demands of their oppressor, and the natural consequence, ruin and desolation has ensued." †

Sir John Chardin gives the following account of the inhabitants of Mingrelia, particularly the women: "The people are generally handsome, the men strong and well made, and the women very beautiful, but both sexes are very vicious and debauched. The women, though lively, civil, and affectionate, are very perfidious for there is no wickedness which they will not perpetrate, in order to procure,

---

* A tomaun equals about $3.02.

† Frazer's Journey to Khorazan.

to preserve, or to get rid of their gallants. The men likewise possess many bad qualities. All of them are trained to robbery, which they study both as a business and as an amusement. With great satisfaction they relate the depredations they have committed, and from this polluted source they derive their greatest praise and honor. In Mingrelia falsehood, depredation, and theft are good actions, and whoredom, bigamy, and incest, are esteemed as virtuous habits. The men marry two or three wives at a time, and keep as many concubines as they choose. They not only make a common practice of selling their children either for gold or in exchange for wares and provisions, but even murder them or bury them alive, when they find it difficult to bring them up."

The Tartars, who occupy vast regions of the high table lands of Eastern Asia, are uniformly described by travellers as a rude, plundering, and uncultivated race of men. "There is something frightful," says Smellie, "in the countenances of the Calmuck Tartars. All of them are wandering vagabonds, and live in tents made of cloth and skins. They eat the flesh of horses, either raw or a little softened by putrefying under their saddles. No marks of religion, or of any decency in their manners, are to be found amongst most of these tribes. They are fierce, warlike, hardy, and brutally gross. They are all robbers, and the Tartars of Daghestan, who border on civilized nations, have a great trade in slaves, whom they carry off by force, and sell to the Persians and Turks." *

The Arabians, like the Tartars, live in a state of wildness and lawless independency; their chiefs authorize rape, theft, and robbery. They hold virtue in no estimation, and glory in almost every species of vice. They roam about in the desert, and attack caravans and travellers, wherever they fall in with them, whom they frequently plunder of their property and murder.

The Chinese, though undoubtedly more civilized than most of the tribes already mentioned, and though they merit praise for their industry, perseverance and ingenuity, are as despicable in their moral characters, and as destitute of true benevolence, as almost any nation on the earth. Avarice is their leading passion, and in order to gratify it they practice every species of duplicity and fraud. They are not wont to be influenced by motives either of honesty or humanity; and they surpass every other nation in private cheating. Captain Cook observes that, the danger of being hanged for any crime being excepted, "there is nothing, however infamous, which the Chinese will refuse to do for gain." In this declaration he concurs with most writers on the Chinese, both ancient and modern.

* Smellie's Philosophy.

The Burmans are a lively inquisitive race, irrascible and impatient; while in peace, they give proof of a certain degree of gentleness and civilization; in war, they display the ferocity of savages.

The Malays, though inhabiting a country beautiful and delightful in the extreme, where refreshing gales and cooling streams assuage the heat, where the soil teems with delicious fruits, where the trees are clothed with a continual verdure, and the flowers breathe their fragrant odors, are a people remarkably ferocious in their manners. They go always armed, except the slaves, and would think it a disgrace to go abroad without their poniards.

The inland inhabitants of Malacca, called Monucaboes, are a barbarous people, delighting in doing continued mischief to their neighbors, on which account, it is said, no grain is grown in Malacca, but what is in the gardens enclosed with the thickest hedges, or deep ditches; for when the corn is grown on the open plain the Monucaboes never fail to set fire to it.

Chardin describes the Persians as warlike, vain, and ambitious of praise, exceedingly voluptuous, prodigal, luxurious and addicted to gallantry. Although this country is regarded by the Western nations as one of the most civilized in Asia, it is well known that the wars and the fiendish cruelties in which the despots of Persia have been engaged, have changed many of the provinces of that country into scenes of sterility and desolation; and much of the miseries of famine, which has recently been desolating that country, is owing to its misgovernment.

The Hindoos are effeminate, luxurious, and practiced in the arts of dissimulation. They can caress those whom they hate, and behave with the utmost affability and kindness to those whom they intend to deprive of existence by the most sanguinary means. Though they seldom scold or wrangle, they often stab each other insidiously, and without any public quarrel gratify a private revenge. The destruction of infants, the immolation of widows, the drowning of aged parents, which prevail among them, and the cruel and idolatrous rites which distinguish their religious services, are too well known to require description.

The Turks, though grave, sedate, and rather hypochondriac, yet when agitated by passion are furious, raging, and ungovernable, dissimulative, jealous, suspicious and vindictive. They are superstitious and obstinately tenacious in religious matters, and, until of late, did not ordinarily exercise benevolence or even humanity towards those whose religion differed from theirs. Interest appears their supreme good, and, when that comes in competition, all ties of religion, consanguinity and friendship are, with the generality of them, speedily

dissolved. They have deprived of their liberty, and to a great extent of their wealth, those who have been subjected to their iron sceptre, and have plunged them into the depths of moral and mental debasement. Their devastations and cruelties, and the deeds of injustice and horror which they have committed, are detailed upon the pages of history, and they are scarcely surpassed by the atrocities of the most savage hordes of mankind.

Such is a partial review of the moral state of the savage and semi-civilized races of mankind, and shall we find a review of the nations called civilized to present a favorable contrast to it? Shall we find that the general moral goodness of the nations called civilized compares favorably with the radical and general moral badness of the nations we have passed in review? Each intelligent person can answer this for himself. What one nation can be pointed to as a good moral example for all other nations to follow? It will be much easier to find an individual man whose moral example would be worthy of being imitated by all the inhabitants of his own nation and all mankind than it would be to find a nation whose moral character, as a nation, would be worthy of being imitated by all other nations.

Idea of the Moral World.

In the moral world, as well as in the physical, there are degrees of approximation to perfection. The physical universe, of course, always exists perfectly constituted, but within the range of our observation we find changes continually taking place in nature. There is first the blade, then the ear, after that the full corn in the ear. The moral world exists in relation to man, and so changes to suit his changeable nature that we hear of moral badness as well as moral goodness. And then there are degrees of approximation from a very bad to a very good moral character. The word moral, derived from the Latin word mos, mores, meaning customs, manners, usages, etc., will clearly show the distinction between the physical and moral world, and that the moral world has special reference to rational beings. People's morals are their manners, customs, usages, etc., in their intercourses with each other; and the morals of an individual are his or her manners, customs, usages, practices, etc., in relation to one's self and to others. Hence, as the manners and customs of a people react in forming their permanent character, we hear of a good or bad moral character, national as well as individual. As long as mankind has existed so long has he had in some sort, manners, customs, usages, etc., and so the moral world is always co-existent with the physical. But the moral world exists especially in

reference to man; he may be said to have created it for his own purposes; and if by any catastrophe, now unknown to us, the race of man should entirely perish from the earth, one world would perish with him, the moral world which he has created for his own purposes. The original thinker in his first excursions is apt to suppose that that which goes by the name of moral world is not worthy of the name world. What, he says, have not all the lower orders of animals their peculiar habits as well as men: habits, which in the case of some of them, as the beaver, the dog, the mole, and the bee, amount to what might be called manners and customs? Or, is the routine of mankind in their intercourses with each other, in accordance with established rules or laws, called social, political and religious, worthy of the name of world as compared with the physical world? But such an one should bethink himself that the term world (the Greek representative of which is *cosmos*, signifying order, or systematic arrangement) involves the idea of system and order; and the fundamental idea of true morality is order. Thus, the law of Moses, contained in the Ten Commandments, is called the Moral Law, because it contains a system of rules which, if perfectly and universally observed, would ensure the preservation and continuance of order among all human beings.

Thus, the distinction is clearly seen between the physical and moral world; and that, if by any means all mankind ceased to exist, the moral world would cease to exist with them; but the physical world would still remain, and the earth, not an atom of matter less by the disappearance of man from it, would continue to exist, and to revolve upon its axis, and round the sun, and day and night would continue to take place upon it, and the seasons would come and go in succession as they do now, and the changes in nature would continue to take place in their seasons, in the main, always as they now do.

It will be remembered that this is a supposed case only to show man's real importance, if we may so speak, and his real position in existence. But on the other hand, we believe that, if man has always existed, so he will always exist, and so the world he has created, the moral world, will co-exist with him. And, moreover, as he is a changeable being he will continue to change his moral system, modifying it, remodelling it, and creating it anew; as, for example, a nation may do which may change its moral system in part, or may change it in whole, social, political, and religious, every century more or less, and may thus create a new moral world as often as it sees fit. And further, it is the moral principle which chiefly distinguishes man from the brutes, constitutes him a responsible being,

to be depended upon in matters of contract and in all social intercourses, and the adherence to which promotes and elevates nations as well as individuals. The primary idea of morality is divinely good, implying intelligent order in and among human beings; the idea of badness being at all associated with it arises from its perversion. He who lives not according to moral principle makes himself lower than the brutes. The cultivation of the moral principle by precept and example and the enforcement of its observance by requisite compulsion and restraint should be the object and care of just and righteous laws. The importance, then, of the adoption and practice permanently of a good moral system, such as that contained in the "Ten Commandments," and in "the Sermon on the Mount." is here clearly recognized.

Secondly: Character of the Ancient Civilized Nations.

And now let us briefly review the state of moral character of the nations called civilized. Among the ancients, the Greeks and Romans are understood to have been the most civilized nations. They were those which are thought to have attained the highest perfection in art and literature. They were those which, of all the ancients, modern nations most delight to imitate in respect to their arts, literature, and arms. The Greek and Roman languages and literature are taught in our academies and colleges and the laws of Lycurgus and Solon, of Numa and Justinian are studied by our undergraduates. But what information do the records of history afford us as to the moral character of these nations. Wars and intrigues, treachery and oppression, and all sorts of crime comprise most of it. In the earliest periods of which history gives us any information, we find these nations engaged in wars. The war of the Grecian States with Troy, an account of which we have in the "Iliad" of Homer, although it is not recorded in history proper, yet is acknowledged by our ablest modern historians to have taken place. This war, having been prosecuted for ten years, ended in the downfall of Troy; and, though we have no certain information as to the numbers that fell on both sides, yet, judging from the numbers said to have been engaged, we know the loss of life must have been very great. Troy is said, according to the common belief, to have fallen in the year 1184 before Christ. We mention this war to show what we meet with in the very beginnings of Grecian history, and as experience teaches that history repeats itself, we may believe that this war was but a repetition of what had been taking place in prehistoric ages. After this followed the first and second Messenian

wars carried on between Sparta and Messenia for a period of many years, during which many battles were fought with incredible fury and great numbers lost their lives. Then followed the Persian wars, carried on first by Darius the Persian, against the Grecian colonies in Asia Minor, and afterwards by Darius and his successor Xerxes against Greece itself. The great battle of Marathon was fought between the Greeks and Persians in the reign of Darius, in which many thousand Persians were slain. Darius, humbled at his defeat, entrusted, at his death, the prosecution of the war against Greece to his son Xerxes. The army which the latter led into Greece was the most numerous of which we have any account in the annals of history, the largest of the expeditions of the crusades of sixteen centuries afterwards not coming nearly up to it. According to the statement of Rollin, which is founded on the statements of Herodotus, a historian of those times, of Isocrates, and Plutarch, this army consisted of a million seven hundred thousand foot, eighty thousand horse, and twenty thousand men for conducting the carriages and camels. On crossing the Hellespont, the strait which separates Europe from Asia, an addition was made to it from other nations of three hundred thousand, which made his land forces amount to two million one hundred thousand men. His fleet consisted of twelve hundred and seven vessels, each carrying two hundred and thirty men, in all two hundred and seventy-seven thousand six hundred and ten men, which was augmented by the European nations with twelve hundred vessels, carrying two hundred and forty thousand men. Beside this fleet the small galleys, transports ships, etc., amounted to three thousand, containing about two hundred and forty thousand men. Including servants, eunuchs, women, and suttlers, and others who usually follow an army, it is reckoned that the whole number of souls that invaded Greece with Xerxes amounted to five million, and nearly three hundred thousand souls. After remaining some time in Greece, nearly the whole of this vast army, along with the fleet, was routed and destroyed. Mardonius, one of the lieutenants of Xerxes, whom the latter at his departure left to prosecute the war in Greece with three hundred thousand men, was finally defeated and slain by the Greeks at the battle of Plateæ, and only three thousand of this vast army is said to have escaped destruction. This account of the invasion of Xerxes appears on the whole to be somewhat exaggerated.

After this followed the first and second Peloponesian wars between the Greeks themselves, the two leading States, Athens and Sparta, being engaged against each other. These wars were carried on for very many years with varying success, and great loss of life

to both sides. And preceding and following all these there were endless wars and contentions between the petty Grecian States themselves in which were displayed the basest intrigue, perfidy, treachery, dishonesty and animosity. They made truces with each other only to break them when they got a fair opportunity; nor did they loose any occasion which presented itself of inflicting damage on each other when at war, attacking each other at night, and murdering and robbing all they could. And it should be borne in mind that the Greeks were a shrewd, cunning people; they united the cunning and treachery of the fox with the boldness and ferocity of the lion and tiger; and in very numerous individual cases the wisdom of the the sage with the courage of the warrior.

The opening history of the Romans also represents that people as engaged in war. The founders of Rome are represented in mythical tradition as descended from the Trojans, who, after the fall of Troy, emigrated to Italy under the leadership of the Trojan chief, Æneas. Romulus and Remus, the descendants of Æneas on their mother's side, and who are represented as having the god Mars for their father, are said to have founded the city, Rome, about the year 753 B.C. In a dispute which arose between the two brothers, as to the name to be given to the new city, Romulus is said to have slain his brother Remus, and so the city was called Rome after the name Romulus. (This, as we have mentioned, is derived from tradition, and is not supported by authentic history; indeed, there are reasons to believe the city, Rome, may have been an old city, before the time it is said to have been founded by Romulus and Remus.) But it goes on to say: The new city being well filled with men who flocked to it from all sides, but there being a scarcity of women, Romulus, in order to obtain wives for his citizen subjects, is said to have made application to the neighboring communities, with that in view: but his proposal being treated with contempt, he resolved to obtain by stratagem what had been denied his honorable request. He invited certain tribes of the Sabines and Latins to come to Rome to witness certain festive games, and when they were assembled his Romans fell upon the daughters of their guests and carried them off by force. In consequence of this Rome became involved in a war with the Sabines, which, however, was brought to an amicable conclusion by the intervention of the women, who threw themselves betwen the two armies and declared themselves willing to share the fate of their new husbands. After this Romulus is said to have waged successful war against Fidenæ and the Etruscan town of Veii, the latter of which he compelled to give up a portion of its territory. His reign is said to have extended over a period of

thirty-eight years, 753–716 B.C., and his death was as marvellous as his birth; for while he was reviewing his people his father, Mars, descended in a tempest and bore him up to heaven. Under the name of Quirinus he was afterwards worshipped as a god for a period of nearly eleven hundred years, from the time he is said to have lived to the establishment of the Christian religion, in the empire, by Constantine, A.D. 330. The same honors were paid him as to his father Mars, and it was believed that he watched for the interest of the state he had founded. This may have been one cause of the invincibility of the Romans in battle, that they thought themselves watched over, favored, and assisted by the founder of their state. Men often believe a lie as if it were the truth; but firmly, though blindly, believing it, it is as truth to them. Although this account, as that of the war of Troy, is mythical, it nevertheless shows us the warlike practice of these people in early historic times, and as we find them to be at the very beginning of their history, so we may certainly conclude them to have been before.

From the reputed time of Romulus to that of the Sicilian and Carthaginian wars, for a period of between three and four hundred years, the Romans were perpetually engaged in contests with the Italian tribes. The Etruscans, the Latins, the Marsians, the Hernicans, the Æquians, the Pelignians, the Umbrians, the Lucanians, and the Samnites, were all subjugated by Rome. She then proceeded to subdue the Grecian States of Southern Italy, and, after continuing the war for many years, during which time the Romans fought many and hard battles, especially with Pyrrhus, King of Epirus, who had come from Greece with an army to assist these Grecian colonies, Rome finally succeeded in conquering both Pyrrhus and all the Grecian States of Southern Italy, and in establishing her government over these States.

In more modern times we have a counterpart for Rome in the Anglo-Saxon Heptarchy; for after, by conquest or otherwise, the seven Saxon kingdoms were brought under the power of the king of Wessex, their forces being concentrated, they expanded by degrees on all sides, and, under a succession of Norman princes, brought into subjection the remaining parts of South Britain, and eventually Ireland. Scotland was united to the government in after times and by peaceful means. But as Rome did not cease to advance her conquests after she had subdued Italy and Sicily, neither did the Anglo-Saxons, when they had subdued Britain and Ireland; but they advanced in all directions in enterprise and arms, until to-day the sun never sets upon the Anglo-Saxon race and language, and their influence in arts and arms is far more than commensurate with the

countries they inhabit. But the comparison in other respects stands thus,—if in the acquisition of territory, England slew her thousands Rome did her tens of thousands. It is to be hoped that, henceforth, England will take care that she add not largely to her cup of blood by war.

Carthage was originally a colony of Phœnicians who, about the year 800, B.C., settled on the northern coast of Africa. These colonists increased their dominions by inroads on the neighboring tribes, and, being a naval power, by degrees became masters of almost every island in the Mediterranean. Thus Carthage may be truly said to have become great at the expense of her neighbors. Their efforts to conquer Sicily brought them into collision with the now formidable forces of Rome. The conflicts between Rome and Carthage are distinguished in history by the name of the Punic Wars, Punic meaning Phœnician, for Carthage, as we have said, was a Phœnician colony. The first Punic war, beginning B.C., 264, lasted twenty-four years; the second seven, and the third four years and some months. In the last contest the city of Carthage was destroyed to its foundations by the Romans. It was delivered up by Scipio, the Roman general, to be plundered by the soldiers; its gold, silver, statues, and other treasures amounting to 4,470,000 pounds weight of silver were carried to Rome; its towers, ramparts, walls and all the works which the Carthaginians had raised in the course of many centuries, where levelled to the ground. Fires were set to the edifices of the once proud metropolis, which consumed them all; not a single house, it is said, escaped the fury of the flames. And although the fire began in all quarters, and burned with great violence, it continued for seventeen days before all the buildings were consumed. Thus perished a city which contained 700,000 inhabitants, and which had waged so many ferocious wars with neighboring nations—a terrible example of the destructive effects produced by malevolent passions in war, and of the retributive justice of the Governor of the universe. The destruction of human life in the wars which Rome waged with Carthage is beyond all specific computation. During the space of sixteen years Hannibal, the Carthaginian general, sacked no less than fourteen hundred towns, and destroyed three hundred thousand of his enemies, and we may safely reckon that nearly an equal number of his own men were cut off by the opposing Roman armies; so that several millions of human beings must have been sacrificed in these bloody and cruel wars.

The following is a summary statement of the number of human beings that were sacrificed in a few of the battles recorded in history as fought for the most part by the Greeks and Romans against their

enemies. In the battle of Issus, between Alexander the Great, at the head of the Greeks, and Darius the Persian, there are said to have been slain 110,000; in the battle of Arbela, two years afterwards, between the same two despots, 300,000. In the siege of Jerusalem by Vespasian and Titus, according to Josephus, there were destroyed 1,110,000. And there are said to have been slain in Jerusalem in the year 170, B.C., by Antiochus Epiphanes, celebrated for having compelled the Jews to worship his image, which he introduced to their temple, 40,000. In the year 101, B.C., in an engagement had between the Romans under Caius Marius, their consul, and the German tribes of Cimbri and Teutons, in transalpine Gaul, there are said to have been slain of these barbarians, aside from what fell on the Roman side, 200,000 men,—some historians say 290,000; and it is related that the inhabitants of these countries in which the battle occurred, made fences for vineyards out of the bones. In the ensuing year the Romans, under the command of the same consul, slaughtered 140,000 of the Cimbri, and took 60,000 prisoners. In the year 105, B.C., the Romans, in a single battle with the Cimbri and Teutons, lost upwards of 80,000 men. In the battle of Cannæ the Romans were surrounded by the forces of Hannibal and cut to pieces, after an engagement of only three hours the carnage became so dreadful that even the Carthaginian general cried out to spare the conquered. Above 40,000 Romans lay dead on the field, and 6000 of the Carthaginians. What a horrible exhibition of the rage and fury of diabolical passions must have taken place on this occasion; and what a dreadful scene must this field of battle have presented, when we consider that, in the mode of warfare of those days, the slain were literally mangled and cut to pieces! In the battle between Scipio and Hasdrubal 40,000 are said to have fallen. At Cyrene there are said to have been slain of Romans and Greeks, by the Jews, 220,000; in Egypt and Cyprus in the reign of Trajan, 240,000; and in the reign of Hadrian, 580,000 Jews. After Julius Cæsar had carried his arms into the territories of the Usipetes in Germany, he is said to have defeated them with such slaughter that 400,000 perished in one battle. (This most probably is exaggerated.) In the battle of Chalons, between the Huns, under Atilla, and the Romans, there perished about 300,000. In the year 631, A.D. there are said to have been slain by the Saracens in Syria, 60,000. In the invasion of Lombardy and Milan, by the Goths, no less than 300,000. In A.D. 734 by the Saracens in Spain, 370,000. In the battle of Yermuk, 150,000. In the battle between Charles Martel and the Mohammedans, 350,000, at the least computation, are said to have been slain. In the battle of Muret, in

A.D., 1213, between the Catholics and Albigenses, 32,000 are said to have fallen. In the battle of Cressy, between the English and French in 1346, 50,000. In the battle of Halidon Hill, in 1333, 20,000. In the battle of Agincourt, in 1415, 20,000. In the battle of Towton, in 1461, 37,000. In the battle of Lepanto, in 1571, 25,000. In the battle of Fontenoy, 100,000.

The destruction of human life in the wars that accompanied and followed the invasion of the barbarous nations who overthrew the Roman Empire in the West is beyond all specific calculation. In the war which was waged in Africa in the reign of the Emperor, Justinian, Procobius remarks: "It is no exaggeration to say that *five millions* perished by the sword and famine and pestilence." The same author states that during the twenty years war which this Emperor carried on with the Gothic conquerors of Italy the loss of the Goths amounted to above *fifteen millions;* nor does this appear altogether incredible when we remember that in one campaign 50,000 laborers died of hunger.

About the beginning of the thirteenth century arose the very cruel and bloodthirsty tyrant, Zingis Khan. With immense armies, some of them amounting to a million of men, he overrun and subdued the Kingdom of Hya, in China, Tangut, Kitay, Turkistan, Karazum, Great Bucharia, Persia, and part of India, committing the most dreadful cruelties and devastations. It is computed that during the last twenty-two years of his reign no less than 14,470,000 were butchered by this merciless scourge of mankind. He appeared to the people of the East like an infernal fiend, breathing out destruction wherever he went, and the doctrine which he preached after conquest was utter extermination.

About the same time when this monster was ravaging the Eastern world those mad expeditions distinguished by the name of Crusades were going forward in the West. Six millions of infatuated mortals, raging with hatred and thirsting for blood, assumed the image of the cross and marched in successive expeditions, in tumultuous confusion, to the confines of Palestine, in order to recover the city of Jerusalem from the hand of the Mohamedans. In these *holy wars*, as they were impiously called, more than 850,000 Europeans are said to have been sacrificed, before they obtained possession of Nice, Antioch, and Edessa. At the capture of Jerusalem in 1099, about 75,000 are said to have been slain; and at the siege of Acre, 300,000. For nearly two hundred years these wild expeditions continued to go forward, and were urged on by proclamations issued from the papal and kingly thrones, and by fanatical sermons from the pulpit, until several millions of deluded wretches perished from the earth;

for the greater part of those who engaged in the crusades either died from hardships endured on the march or were slain or taken prisoners. At this period, and for many centuries before, the wide expanse of Europe and Asia exhibited little else than one great field of battle, in which nations were dashing against each other, conquerors ravaging kingdoms, tyrants exercising the most awful cruelties, superstition and revenge immolating their millions of victims, and tumults, insurrections, slaughter and universal alarm, banishing peace and tranquility from the abodes of men, and subverting the moral order of society. The European states were distracted by the incessant disputes between the popes and the emperors; the interior of every European kingdom was torn in pieces by the contending ambition of the powerful barons; in the Mohamedan Empire the caliphs, sultans, and emirs, waged continual war; new sovereignties were daily rising and daily being destroyed, and amidst this universal slaughter and devastation the whole earth seemed in danger of being laid waste, and the human race to suffer an extermination.

In the latter part of the 14th century arose Tamerlane, one of the successors of Zingis Khan. This ruthless conqueror followed in the footsteps of his predecessor, the cruel Zingis. Putting himself at the head of large armies he overran Persia, Turkestan, Kipzak, Russia and Hindostan, ravaging as he went, levelling cities with the dust, cruelly destroying their inhabitants, and committing the most horrible depredations. He also conquered the Turks of Asia Minor and carried the Sultan Bajazet into captivity, as it is said, in an iron cage. Whole nations were crushed under the iron heel of this conqueror. The historian Gibbon when speaking of him says: "The ground which had been occupied by flourishing cities, was often marked by his abominable trophies, *by columns or pyramids of human heads;* and perhaps his conscience would have been startled if a priest or a philosopher had dared to number the millions of victims whom he sacrificed to the establishment of peace and order."* Such is the motive that invaders generally avow for their action—that they may establish order in the nations which they invade—but too often it happens that instead of bringing order and tranquillity they bring to them ruin and devastation. By the Crimean War, carried on between France, England, and Russia, there were killed 784,991. By the Italian war of 1859, 45,000. By the war with Schleswig-Holstein, 3,500. In the American civil war, of the Northern army there were killed 281,000; of the Southern army, 519,000. In the war of 1866 between Prussia, Austria, and Italy, 45,000. In

* Gibbon's Rome.

distant and various wars in Mexico, Cochin China, Morocco, St. Domingo, Paraguay, etc., 65,000; making a total of one million seven hundred and fifty thousand men swept off by war in the space of fourteen years, between 1853 and 1866. And in carrying on these wars it is estimated there was spent at the least calculation, nine thousand five hundred and sixty-five millions of dollars; an amount of money which if put to the use of benefitting humanity, might have transformed the whole moral and social condition of civilized nations for the better. It is said the entire loss of Germany in the late war it had with France was something like 180,000 men, rather more than half of whom are invalided; and it is certain the loss on the part of France was not less but perhaps much greater: and this war was carried on at a corresponding rate of expense.

It may be remembered that the instances we have adduced are only a few circumstances in the annals of warfare. And yet in a few of the instances last stated, we are presented with a scene of horror which includes the destruction of between fifty and sixty millions of the human race, besides the other various kinds of suffering which war entails. Language can scarcely be found strong enough to express the emotions of the mind when it seriously contemplates the horrible scene. And is it not melancholy to reflect that in the present age, which boasts of its improvements in science, in civilization and religion, neither reason, nor humanity, nor christianity, nor benevolence, has yet availed to stop the progress of destroying armies, and to set a mark of ignominy upon the nations that delight in war. To counteract this most irrational and deplorable propensity by every means which reason or humanity can suggest should be the duty of every one who is desirous to promote the present and future benefit of his species.

For our review of the moral character of the civilized nations we have chosen Greece and Rome, and the nations immediately connected with them, as the most fit representatives of ancient times; and in continuing this review we shall confine it to those nations which have arisen out of the Roman Empire, as the fittest representatives of civilization in modern times. It would not answer to choose out any one of these nations as the fittest national representative of civilization in modern times, for each of them would be unwilling to be classed less high in that respect than any of the others. It becomes our duty, therefore, to take a glance at each of them so far as our limits will allow, and see how they appear to stand with respect to moral character.

We have given proof of the warlike dispositions which were displayed in the Greek and Roman empires, and in a few instances

of other nations also that waged war with them and on their borders; and now it will be well to slightly examine what dispositions are displayed by these modern nations, while at the same time they may be considered in connection with their religious institutions. As to the dispositions displayed by these modern nations, pride and selfishness are prominent characteristics in them all. All these nations are more or less addicted to wars, and pride and selfishness are the prime movers to the wars which they wage.

Russia has proceeded in her career of self-aggrandizement for the last two centuries, absorbing one nation after another against their will, until her dominions now extend across the whole continent of Asia from the China Sea to the Baltic; and from Mount Caucasus and the frontiers of Tartary to the frozen ocean. Russia has to a large extent made herself great at the expense of her neighbors; starting from her northern desert, in the time of Peter the Great, she has extended her dominions, until she is now equal in extent of territory to any other nation on the globe. Her government is strictly despotic. Her religion is Christian of the Greek model, which we shall have occasion to speak of in the latter part of the book. The mass of her peoples, until lately serfs, are generally ignorant and of a servile spirit. Her penal laws are exceedingly severe; the severest punishments are frequently inflicted for the most trivial offences. At the will of the emperor, and often for very slight offences, men are bound in irons and transported to the frozen regions of Siberia, there to drag out a most miserable existence, until death or the term of their banishment puts an end to their sufferings. The knout is one of the most common instruments of punishment used in Russia. This instrument is a thong made of the skin of the elk or the wild ass, and so hard that a single stroke cuts the flesh to the bone. The following description is given by Olearius of the manner in which he saw the knout inflicted on eight men, and one woman, only for the crime of selling brandy and tobacco without a license: "The executioner's man, after stripping them down to the waist, tied their feet, and took one at a time on his back. The executioner stood at three paces distance, and, springing forward with the knout in his hand, whenever he struck the blood gushed out at every blow. The men had each twenty-five or twenty-six lashes; the woman, though only sixteen, fainted away. After their backs were thus dreadfully mangled they were tied together, two and two; and those who sold tobacco having a little of it, and those who sold brandy a little bottle put about their necks. They were then whipped through the city of Petersburgh, for about a mile and a half, and then brought back to the place of their punish-

ment and dismissed." This is what is termed the moderate knout, for when it is administered with the utmost severity, the executioner striking the flank and ribs, cuts the flesh to the bowels, and therefore many die of this merciless and inhuman punishment. The punishment of the pirates and robbers who infest the banks of the Volga, is another act of savage cruelty peculiar to Russia. A float is built whereon a gallows is erected, on which is fastened a number of iron hooks, and on these the wretched criminals are hung alive by the ribs. The float is then launched into the stream, and orders are given to all the towns and villages on the borders of the river, that no one upon pain of death shall afford the least relief to any of these wretches. These criminals sometimes hang in this manner three, four, and even five days alive. The pain produces a raging fever, in which they utter the most horrid lamentations, imploring the relief of water and other liquids. During the reign of Peter the Great the robbers who infested the various parts of his dominions, especially the banks of the Volga, were hung up in this manner by hundreds and thousands, and left to perish in the most dreadful manner. The boring of the tongue, and the cutting of it out, are practiced yet in Russia as an inferior species of punishment. It is much to be hoped that the time will soon come when governments will see and admit the folly and injustice of such proceedings. Punishment administered beyond the desert of the offence, can have no other tendency than to demoralize the minds of the people, to blunt their natural feelings, and to render criminal characters still more desperate; and hence we need not wonder at what travellers affirm respecting the Russians, that they are very indifferent as to life or death, and undergo capital punishment with unparalleled apathy and indolence. It matters little what the name of the religion is that is professed by a government which practices, or allows to be practiced in its dominions, such tyranny, brutality and cruel barbarism. In order to show itself civilized and a worthy apostle of its faith to foreign peoples, a government should show itself exemplary at home by dealing righteously, benevolently, and beneficently with its own people.

Prussia and Russia may be said to have attained a conspicuous national existence at the same time. In the year 1701 Frederick, the Margrave or Count of Brandenburgh, deeming himself strong enough to make good his intentions against the nations which might choose to oppose him. crowned himself king, and publicly announced that his name henceforth was not elector of Brandenburgh, but king of Prussia. At the same time Peter the Great was engaged in the work of building the City of St. Petersburg, and of making Russia a naval

power, after having a few years previously prepared himself for this task by practicing as a shipbuilder in an English dockyard. Both of these nations have since then under successive rulers made great advances to power. We have stated by what means Russia enlarged her dominions to such a great extent; and shall we now inquire by what means Prussia has come by her power and attained to the supremacy among the German States which she now enjoys? Was it by peaceable or warlike measures? Mainly by war. True, Prussia owes much for her present eminency to the intelligence of her people; and this is, of course, owing to the system of education that is established and carried on in that country. Now the proper object of a system of education is to diffuse a knowledge of the sciences, the useful arts, and of any other branch of knowledge the acquisition of which may tend to the happiness and well-being of the people. But the system of education established in Prussia includes the teaching of the military art as well as the other arts. And it may probably be argued that the art of war is a necessary and useful one. There is no necessity of it if men but keep the principles of pride and selfishness in their own nature in due subordination to the principles of godliness, which they can do by having right reason rule. Nor can the greatness that is derived from war be called true greatness. What, it may be asked, Is a nation to look on inactively and see itself invaded, desolated, and absorbed by an enemy without offering any resistance? This sometimes would be the wisest policy for a nation in such circumstances. Some of those nations, for example, which have been absorbed by Prussia herself during her career of conquest and by Russia might have done better had they thus acted. Since they were not able effectually to repel, it would have been wiser for them to have submitted to the invader, without actively resisting him, by which course they would at least have saved the lives of those who fell, and perhaps obtained better terms from the aggressor. But if a strong nation is attacked what course should it pursue? Intelligent non-resistance would in this case even be the best course to follow, and by peaceful measures to obtain the best conditions obtainable; it is also by far the most praiseworthy. But each nation, when it feels itself greatly aggrieved by another, no matter how limited its resources for offence and defence are as compared with those of the other, is apt to feel itself equally strong, just as a small weak man feels when he is provoked to combat by a large athletic one. Well, as there is no necessity of either of these men striking the other, nor of the one that may have been struck striking in return, so there is not the slightest need of a nation, whether it may be powerful or weak, striking either in aggression or defence. In-

telligent non-resistance on the part of a nation, as of an individual, makes the aggressor feel ashamed of his conduct, and is the means of saving life and limb and property, and of securing the blessings of happiness and peace to many people who should otherwise suffer. But the question is often and very considerately asked Who, when struck or insulted, can abstain from striking or insulting in his turn? Any one can abstain from it if he will but act considerately. If a man returns an insult he degrades himself to the level of him who insults him; but if one try to kill him, he should endeavor to not be killed. Reason should always be allowed to govern; passion or malevolence not for a moment. We have ourselves always acted on the principle of intelligent non-resistance, and mean to do so as long as we live. The principle of good-will to men, men of every character and temper, should be cultivated by all, and no principle contrary to this should be allowed to occupy the breast for a single moment. If men are weak enough to strike or insult, they are so from ignorance or the depravity of their nature; such should be looked upon with compassion, and their good, not their evil and destruction, should by every means be sought; when they come to fully understand what they are, and what they should be and do, they will be strikers and insulters no longer. Example is ever more powerful than precept, in the case of nations as well as individuals. But, as in the case of two men who are about to quarrel, the law holds that one accountable who strikes first, why may there not be an international law established among the civilized nations, which no one nation will be allowed to transgress? But it may be said that transgression of that law would imply the use of compulsory means to enforce obedience to it, and that this means might necessarily be war. If it were stipulated by the international law that all the nations agreeing to it should remain unarmed, that military principles should not be taught nor warlike implements manufactured or retained by these nations, then war could not be the means resorted to in such a case. But it may be said that when a nation would feel inclined to transgress or to secede from the international confederacy it might insiduously import arms and equipments of war from some other nations outside of the league, and so prepare itself to effectually accomplish its object. To prevent the occurrence of such a breach it would be wise for the confederacy to embrace within itself as many as possible of the nations of the earth, even those they would deem uncivilized; to bring all these if possible to live and abide by the stipulations of the international law; so that there might be no place left from whence to import the means and implements of war. Cannot such a state of things be brought about? It

can be effected, first by the civilized nations among themselves; then by their gradually bringing into their confederacy all the other nations. The first step to be taken to this good end is the universal education of the masses of the people high as well as low in every nation, in the principles of self-denial, charity and true humility; and to this end, the principles of military discipline should not be taught in the schools, nor should anything be taught which would tend to foster or cultivate a warlike spirit. There should be no panegyrics delivered by the teachers nor found in the school-books upon the virtues of warriors of past ages or of the present; nor should an Alexander, a Cæsar, a Frederick, a Bonaparte, a Wellington, or even a Washington, so far as he was a warrior, be held up to the admiration or the imitation of the students; only the sciences and the arts which tend to peace should be taught; the principles of pride and selfishness should be not only suppressed but eradicated; and the principles of true virtue, of honest industry, of charity, and intelligent humility, should be universally inculcated and exemplified to the youth. Such a state of things, then, as we have contemplated might be begun to be brought about by the universal education of the masses, commencing with all youth of the present generation; and, as the people would be continually advancing to a higher state of knowledge and civilization, the nations would become more peaceful, stable, and prosperous, would cultivate more the sciences and arts which tend to peace, and would become more closely united to each other in the bonds of charity and mutual good will. We have before explained how that man creates the moral world, and that the great object of a moral system is to enable men to live in association with each other according to order and right. Now this being so that moral system is certainly imperfect, and unworthy of the name of world, which does not provide that men *shall not kill each other* by means of war. It implies not order, but disorder, and all its train of evil consequences. To the end that a better system may be established, and that as universally as possible, much may now be begun to be done by rulers and men of power and influence in all nations, yea and by every teacher, every parent, and every individual both subjectively and objectively. This education, which as we have said is the first step towards the bringing in of a state of things for the better, permanently, must be as universally diffused as possible, and individually subjective as well as objective; for each one must educate him or her self in the principles and practices of self-denial, humility and all the kindred principles which pertain to godliness as well as teach others, as far as one can, the same princi-

ples and practices. Then would love be the motive power to action, instead of, as before, pride and selfishness.

But to return to our main subject, Prussia has to a great extent aggrandized herself, as Russia did, at the expense of her neighbors. It has subdued one nation after another by force of arms; it has domineered over Austria; it has humiliated France, and by its course of war and bloodshed it has attained the supremacy in the German States. And in other respects also the moral character of the Prussians is not what it ought to be. It has long enforced a very severe penal code. The following account is given by a traveller, who was in Berlin in 1819, of the execution of a man for murder, which shows that the execution of criminals in Prussia is frequently attended by a species of cruelty worthy of the worst days of the Inquisition: "Amidst the parade of executioners, officers of police, and other judicial authorities, the beating of drums, and the waving of flags and colors, the criminal mounted the scaffold. No ministers of religion appeared to gild the horrors of eternity, and to soothe the agonies of the criminal; and no supplicatory prayer closed his quivering lips." "Never," says the narrator, "shall I forget the one bitter look of imploring agony that he threw around him, as, immediately in stepping on the scaffold, his coat was rudely torn from his shoulders. He was then thrown down, the cords fixed around his neck, which were drawn until strangulation almost commenced. Another executioner then approached, bearing in his hands a hugh wheel, bound with iron, with which he violently struck the legs, arms, and chest, and lastly the head of the criminal. I was unfortunately near enough to witness his mangled and bleeding body still convulsed. It was then carried down for interment, and in less than a quarter of an hour from the beginning of his torture, the corpse was completely covered with earth. Several large stones which were thrown upon him hastened his last gasp; *he was mangled into eternity.*" Punishments, as we have before said, should not be more than proportioned to the crimes for which they are inflicted, and in every case should be designed for the benefit of the criminal, or of society, or of both. If the life of the criminal is to be taken, the object of the punishment cannot be his benefit; and no benefit can accrue to society from his being treated with a greater degree of severity than his crime deserves. If the life of the criminal is not to be taken the object of the punishment should be his moral improvement, and the punishment should not be greater than he deserves. An unduly severe criminal code in any country is proof that that nation has yet to advance some degrees before it can be called civilized.

France is a nation which until very lately played an important

part in the history of Europe. From being one of the provinces of the Roman Empire she was raised to the position of an independent state by Clovis in the 5th century, A. D. In the latter part of the 8th century she was raised to a greater height of power by the conquests of Charlemagne; she afterwards lost a great part of the dominions which she had acquired through him, and gained them again after a long interval through the conquests of Napoleon Bonaparte, but only to retain them for a very short time. France, before called Gaul, has as long as we have known her historically, been a nation addicted to war. She has, however, not been remarkably successful in war, never having attained to a very great degree of power, except under the two conquerors just named. Charlemagne is said to have carried on fifty-three campaigns. He was a remarkably ferocious and cruel man. On one occasion, it is said that he beheaded 4,500 Saxon prisoners on the same spot, which may serve as a specimen of the butcheries of this ferocious warrior. This was the man who was crowned by Pope Leo in the church of St. Peter at Rome, in the last year of the 8th century; and who is also inscribed as a Saint of the Roman Church. In him the Roman Empire of the west was considered to have been revived after it had been overthrown and trampled upon for some centuries by the Goths and Vandals, and other northern nations; and from that time till the withdrawal of the French troops from Rome, in the time of Napoleon III., France has almost always been a zealous supporter of the Papacy. We need not here detail the wars of the Bonapartes, their rise, progress, and terminations; they are very generally known, and equal in cruelty and the destruction of human life the battles of ancient times. We shall relate only a few instances of French barbarity in these wars. "After the taking of Alexandria by Bonaparte," says the relater, "we were under the necessity of putting the whole of them to death at the breach. But the slaughter did not cease with the resistance. The Turks and inhabitants fled to their mosques, seeking protection from God and their prophet; and then men and women, old and young, and infants at the breast, were slaughtered. This butchery continued for four hours, after which the remaining part of the inhabitants were much astonished at not having their throats cut." From what follows we can see that all this bloodshed was premeditated. "We might have spared the men whom we lost," says General Boyer, "by only summoning the town; but it was necessary to begin by confounding our enemy." After the battle of the Pyramids, it is remarked by an eye witness, "the whole way through the desert was tracked by bones and bodies of men and animals, who had perished in these dreadful wastes. In order to warm themselves at night

they gathered together the dry bones and bodies of the dead, which the vultures had spared, and it was by a fire composed of this fuel that Bonaparte lay down to sleep in the desert."* Miot gives the following description of a scene at Jaffa: "The soldier abandons himself to all the fury which an assult authorizes. He strikes, he slays, nothing can impede him. All the horrors which accompany the capture of a town by storm are repeated in every street, every house. You hear the cries of violated females calling in vain for help to those relations whom they are butchering. No asylum is respected. The blood streams on every side; at every step you meet with human beings groaning and expiring, etc." Sir Robert Wilson, when describing the campaign in Polland, relates, that "the ground between the woods and the Russian batteries, about a quarter of a mile, was a sheet of naked human bodies, which friends and foes had during the night mutually stripped, not leaving the worst rag upon them, although numbers of these bodies retained consciousness of their situation. It was a sight which the eye loathed, but from which it could not remove." In Labaume's "Narrative of the Campaign in Russia," we are presented with the most horrible details: "palaces, churches, and streets enveloped in flames; houses tumbling into ruins, hundreds of the blackened carcasses of the wretched inhabitants, whom the fire had consumed, blended with the fragments; hospitals containing 20,000 wounded Russians on fire, and consuming the miserable victims; numbers of half-burnt wretches crawling among the smoking ruins; females violated and massacred; parents and children half-naked, shivering with cold, flying in consternation with the remains of their half-consumed furniture; horses falling in thousands, and writhing in the agonies of death; roads covered for miles with thousands of the dying and the dead, heaped one upon another, and swimming in blood, and these dreadful scenes rendered still more horrific by the shrieks of young females, of mothers, and children, and the piercing cries of the wounded and the dying, invoking death to put an end to their agonies." It is probable that some of our readers have been so affected by the description already given, that they have turned away their eyes in disgust from such an appalling spectacle of suffering and horror, but these are only a few instances out of thousands which the authentic histories of the French wars present before us. What untold sufferings have been caused by the wars which France has carried on in our own day! Wars with Russia, with Austria, with Prussia, and last the fratricidal war which was waged at Paris between its own citizens at the

* Miot's Memoirs.

termination of the late war with Germany. Yet France has long been considered a leading civilized nation of Europe. The French nation have been characterized as a vain, immoral, and licentious people, in their social state, especially the inhabitants of their chief cities; and these their sins may have sometimes brought destruction upon that people; but we are aware that the suffering and destruction of the many are often caused by the pride and selfishness of a few, very often by the will of an individual, as we believe that last war with Germany may have been which humbled France to the dust and caused such immense loss and suffering to her people.

The penal code in France has also been extremely severe. The execution of Damiens in 1757, for attempting to assassinate Louis XV., was accompanied with tortures, the description of which is enough to harrow the feelings of the most callous nature, tortures which could scarcely be exceeded in intensity, even though they were invented by an infernal fiend; and yet they were beheld with a certain degree of apathy by a surrounding populace, and even counsellors and physicians could talk together deliberately about the best mode of tearing asunder the limbs of the wretched victim, with as much composure as if they had been dissecting a dead subject or carving a fowl.

France has also distinguished itself for its massacres on account of religion. Of these, that of the French Protestants, on the Feast of St. Bartholomew, August 24, 1572, was perhaps, one of the most diabolical acts of perfidy and cruelty which have stained the character of that nation. Everything connected with this unexampled conspiracy and assassination was atrocious and horrible. Ties of the most sacred nature were violated; superstitious zeal was changed into an impious frenzy; and filial piety degenerated into sanguinary fury. Under the direction of the infamous Duke of Guise, the soldiers and the populace, *en masse*, at the signal of the tolling of a bell, flew to arms, seizing every weapon that came in their way; and thus rushing in crowds to every quarter of the city of Paris, no sound was heard but the terrible cry, "Kill the Huguenots." Every one distinguished for being attached to the reformed faith, without any distinction of rank, age or sex, was indiscriminately massacred. The air resounded with the horrid cries and blasphemous imprecations of the murderers, the piercing shrieks of the wounded and the groans of the dying. Headless trunks were every moment thrown into the court-yards or the streets, the gateways were choked up with the bodies of the dead and dying, and the streets presented a spectacle of mangled limbs and human beings, dragged by their butchers in order to be thrown into the Seine. Hotels and public buildings were

reeking with blood : death and desolation reigned on every side, and in all quarters carts were seen loaded with dead bodies, destined to be cast into the river, whose waters were for several days polluted with tides of human gore. The infuriated assassin, urged on by the cry that " it was the King's will that the very last of this race of vipers should be crushed and killed," became still more furious in the slaughter ; in proof of which one Cruce, a jeweller, displaying his naked and bloody arms, vaunted aloud that he had cut the throats of more than four hundred Huguenots in one day. The number of victims thus slaughtered in the city of Paris amounted to about 6000 ; and in the provinces, at the same time, perished about 60,000 souls. The news of this massacre was welcomed at Rome with the most lively transports of joy. The Cardinal of Lorraine gave a large reward to the courier, and interrogated him in such a manner upon the subject as plainly to indicate that he had been previously aware of the intended catastrophe. Cannons were fired, bonfires were kindled, and a solemn mass celebrated at which Pope Gregory XIII. assisted, with all the splendor which the Papal Court was accustomed to display on the happening of events the most significant and of the most important consequences.*

In the civil wars on account of religion in France, in the early part of the seventeenth century, it is computed that about a million of men lost their lives ; and nine cities, 400 villages, 2000 churches, and 10,000 houses were burned and destroyed during their continuance, besides the many thousands of men, women and children, which were cruelly butchered ; and 150,000,000 livres were spent in carrying forward these slaughters and devastations. It is said of Louis XIII., who prosecuted these wars, by one of his biographers and penegyrists, Madame de Motteville, that " what gave him the greatest pleasure was his thought of driving heretics out of the kingdom, and thereby purging the different religions which corrupt and infect the Church of God."

But France has distinguished herself for a fanatical persecuting spirit as well in an atheistical as in a religious or superstitious point of view. The first revolution in France, in 1789, was a revolution not merely in politics and government, but in religion, in manners, and in the common feelings of human nature. It is stated on good authority that a little before this revolution a numerous assembly of *French Literati* being asked in turn at one of their meetings by their president, " whether there was any such thing as moral obligation, answered in every instance that there was not."

---

* Memoirs of Henry the Great.

Soon after that revolution the great body of the French infidels who then ruled the nation not only denied all the obligations which bind us to truth, justice, and kindness, but pitied and despised, as a contemptible wretch, that man who believed in their existence. Atheism was publicly preached and its doctrines disseminated among the mass of the people. A professor was even named by Chaumette to instruct the children of the state in the mystery of Atheism. De La Metherie, the author of a philosophical journal, when discussing the doctrine of crystallization, made the monstrous assertion, "that the highest and most perfect form of crystallization is that which is vulgarly called God." In the National Convention, Gobert, Archbishop of Paris, the Rector Vangirard, and several other priests, abjured the Romish religion, and for their abjuration they received applause, and the fraternal kiss. The convention decreed that all the churches and temples of religious worship, known to be in Paris, should be instantly shut up, and that every person requiring the opening of a church or temple should be put under arrest as a suspected person and an enemy of the State. The consequences of the universal operation of such principles, and such a high-handed course of procedure on the part of those in authority, were such as might have been expected. They are written in characters of blood. A scene of inhumanity, cruelty, malignity and insatiable rapacity was presented to the world, which excited in the mind of every virtuous spectator amazement and horror. Savage atrocities were committed, which would have been shocking in the most barbarous and unenlightened age; and perhaps at no time in no country was there more licentious practices and more degeneracy displayed. The ties of friendship were severed, the claims of consanguinity disregarded, and a cold-blooded selfishness prevaded the great mass of society. "The kingdom appeared to be changed into one great prison; the inhabitants converted into felons, and the common doom of a man commuted for the violence of the sword and the bayonet, and the stroke of the guillotine." Such was the rapacity with which destruction was carried on that, in the short space of ten years, not less than three millions of human beings are supposed to have perished in that country, chiefly through the out-working of the malevolent principles of the human heart, and the seduction of a false philosophy. The following is a brief sketch of some of the scenes to which we allude, drawn by one who was an eye-witness and an actor in several parts of that horrible drama: "There were," says this writer, "multiplied cases of suicide, prisons crowded with innocent persons, permanent guillotines, perjuries of all classes, parental authority set at nought, debauchery encouraged by an allowance for those called

unmarried mothers, and six thousand divorces in the city of Paris within a little more than two years; in a word whatever is the most obscene in vice and most dreadful in ferocity."* Notwithstanding the incessant shout of "liberty and equality," and the boasted illumination of philosophy, the most cruel persecutions were carried on against all those whose religious opions differed from the system adopted by the State. While infidelity was in power it wielded the sword of vengeance with brute ferocity against the priests of the Romish Church, who were butchered wherever found, hunted as wild beasts, frequently burned alive, or drowned in hundreds together, without accusation or trial. At Nantes, 360 priests are said to have been shot, and 460 drowned. In one night 58 were shut up in a barge, and drowned in the Loire; 292 priests were massacred during the bloody scenes of the 10th of August, and the 2nd September 1792; and 1135 were guillotined under the government of the National Convention, from the month of September, 1792, until the end of 1795; besides vast numbers who, hunted by the infidel republicans like owls and partridges, perished in different ways throughout the provinces of France. The bloody scenes which have been enacted in Paris in our own day, when Darboy, the archbishop, and several priests, besides thousands of other people, were killed by the Communists and Nationalists in their mutual struggle, correspond to the scenes we have just depicted. And the fact of these infidels or atheists, when they came into power, carrying on such violent persecutions plainly shows that the persecuting spirit is not confined to one sect, be they called papist or atheist, but is simply the working out of the evil principle in man. Men, however, are always inclined to leave the blame of their diabolical actions upon other things than themselves, often upon mere names or ideas. We gather also from the foregoing history of the reign of atheism in France, that, when a nation becomes too enlightened for its established religion or superstition, it is sometimes apt to discard it altogether, and to adopt a system of principles the opposite to those of the old. The same thing takes place in the case of individuals. There is danger in such a course, and there hardly ever is any necessity of adopting extreme opinions upon one side or the other. Changes in the moral world, as in the natural take place gradually. A plant does not come to maturity in a moment nor a child to manhood in a day. Time is required for the intelligent adoption of a creed both by an individual and a nation; and the truth is best arrived at and maintained by preserving the mean between opposite extreme opinions. A national religion

* Gregoire.

should not be discarded by the state until a better substitute can be made for it; and the new system if established should receive the moral support and protection of the government of the state; if not established as in republics, where all religions are equally tolerated, but yet has become so generally prevalent as virtually to supplant the old, it should receive at least the moral support and protection of the government. Violent changes in any department of the moral world are productive of disorder; and since, as we have said before, the fundamental idea of morality is order, when a change in any department of the moral system is required, not only the change itself but the best manner in which the change can be brought about is to be considered by those who are to effect it. The object of government is not only to preserve order among the people but also to subserve and advance their interests and highest good; and the necessity of the worship of the Deity being generally recognized as conducive to the happiness and order of the people, governments may well give their moral support and protection to that system of religion which combines simplicity with truth, and which can be practiced most intelligently by the masses of the people.

As corroborative of the idea advanced with respect to the licentious character of the French, especially the Parisians, we extract the following from Sir Walter Scott's visit to Paris in 1815.

"The Palais Royale, in whose saloons and porticoes vice has established a public and open school for gambling and licentiousness, should be levelled to the ground with all its accursed brothels, and gambling houses, rendezvous the more seductive to youth as being free from some of those dangers which would alarm timidity, in places of avowedly scandalous resort. In the Salon des Etrangers, the most celebrated haunt of this Dom-Daniel which I had the curiosity to visit, the scene was decent and silent to a degree of solemnity. An immense hall was filled with gamesters and spectators. Those who kept the bank and managed the affairs of the establishment were distinguished by the green shades they wore to preserve their eyes, by their silent and grave demeanor, and by the paleness of their countenances exhausted by their constant vigils. There was no distinction of persons nor any passport required for entrance save that of a decent exterior; and on the long tables which were covered with gold, an artizan was at liberty to hazard his week's wages, or a noble his whole estate. Youth and age were equally welcome, and any one who chose to play within the limits of a trifling sum, had only to accuse his own weakness, if he was drawn into deeper or more dangerous hazard. Everything appeared to be conducted with the most perfect fairness. The only advantage pos-

sessed by the bank, which is, however, enormous, is the extent of the funds by which it is enabled to sustain any reverse of fortune; whereas most of the individuals who play against the bank are in circumstances to be ruined by the first succession of ill-luck: so that ultimately the small ventures merge in the stock of the principal adventurers, as rivers run into the sea. The profits of the establishment must indeed be very large to support its expenses. Besides a variety of attendants who distribute refreshments to the players gratis, there is an elegant entertainment with expensive wines, regularly prepared about three o'clock in the morning for those who choose to partake of it. With such temptations around him, and where the hazarding an insignificant sum seems at first venial or innocent, it is no wonder that thousands feel themselves gradually involved in the vortex whose verge is so little distinguishable, until they are swallowed up with their time, talents, fortune, and frequently also both body and soul. This is vice with her fairest vizard; but the same unhallowed precinct contains many a secret cell for the most hideous and unheard of debaucheries; many an open rendezvous of infamy, and many a den of usury and treason; the whole mixed with a vanity fair of shops for jewels, trinkets, and baubles that bashfulness may not need a decent pretext for adventuring into the haunts of infamy. It was there that the preachers of revolution found, amidst gamblers, desperadoes and prostitutes, ready auditors of their doctrines, and active hands to labor in their vineyard. It was here that the plots of the Bonepartists were adjusted; and from hence the seduced soldiers, inflamed with many a bumper to the health of the exile of Elba, under the mystic names of Jean de l'Epée, and Corporal Violet, were dismissed to spread the news of his approaching return. In short from this central pit of Acheron, in which are openly assembled and mingled those characters and occupations, which in all other capitals are driven to hide themselves in separate and retired recesses; from this focus of vice and treason have flowed forth those waters of bitterness of which France has drank so deeply." Now if such a state of things as is here set forth existed at headquarters, right in the departments of the Royal Palace, what must we think existed in other and less public places in Paris, and in France? The great mass of people are generally imitative, inclined to follow the example set them in high places.

It has been the custom in the French Capital to register large numbers of public women who were made to pay from 25 to 50 dollars each, monthly, according to their rank, beauty or fashion. 1552 kept mistresses were noted down by the police; 380 brothels licensed

by the prefect, and 12,076 public women were registered in the year 1803. From the number of divorces it appears that marriage was looked upon as a mere temporary connection from which the parties might extricate themselves when they pleased, and illegitimate children, especially in Paris, are numerous beyond what they are in any other city. It seems hardly conceivable that a government should debase itself to authorize the practice of such licentiousness as is here represented, and to derive a large revenue from such infamous and polluted sources. No government which authorizes or countenances such practices may expect to thrive or be prepetuated. Such practices enervate a people, yea, destroy them body and soul. They are sure to bring down upon the nation in which they exist, sooner or later, the retributive justice of the Governor of mankind. May it not truly be said that the humiliation to which France was subjected at the termination of the first empire and in the late war with Germany, when her whole armies were taken into captivity, which was succeeded by the mutual slaughter of her own people at Paris, were so many visitations on this people for their wickedness? They doubtless were. And not only that, but we fail to see that the sympathetic refinement, which is derived from a too free intercourse of the sexes with each other, while unmarried, is worthy of the name of civilization. It is altogether too contemptible and base for the name. Men and women should deny themselves if they cannot afford to live in honorable marriage. And men and women, be they young or old, should prefer to live on the humblest fare and clothed with the coarsest garments, even though their means were sufficient to afford them a daintier kind, rather than practice luxurious living, or any species of licentiousness, or squander their time and talents which they possess in a too free intercourse with each other. Thus from the review we have been able to give of the moral character of the French, as indicated by their history, it is evident that though they are esteemed a civilized nation they are yet far behind true civilization, and that, if they ever attain a high national character for morality, they will have to alter radically and completely their present moral principles and practices.

In taking a review of the moral character of the Spaniards, as indicated by their history, we find it a good deal as we have found it in the case of the French. From the earliest historical records we have of Spain we find that country to have been the scene of savage warfare, on which the most ferocious passions were displayed. There the Romans, the Goths, the Vandals, the Moors, and the Arabs, fought and reigned at different periods. During certain periods of her history, Spain possessed great power as a nation, and, as France, she

attained her power by war, and lost it in the same way. In the employment of war, and otherwise, the Spaniards have displayed the most savage ferocity, and the most brutal as well as the most refined and exquisite cruelty. Spain has always been the champion of the Romish religion, and in this country that diabolical tribunal of the Inquisition was firmly established and manipulated. Considering indeed, the inhuman and refined cruelties which have been practiced by Spain on account of religion or superstition, that country may, with propriety, be called the peculiar seat of Satan. In the Netherlands alone, from the time that the edict of Charles V. was promulgated against the reformers, more than 100,000 persons were hanged, beheaded, buried alive, or burned, on account of professing the reformed religion. The prisons were crowded with supposed heretics, and the gibbet, the scaffold and the stake filled every heart with terro. The duke of Alva, Spanish general to the Netherlands, and his bloodthirsty tribunal, spread universal consternation throughout the provinces; and though the blood of 18,000 persons who in five years had been given up to execution for heresy, cried for vengence on this persecutor, and his abettors, yet they gloried in their cruelty. Philip II., in whose reign these atrocities were committed, hearing one day that thirty persons had a little before been burned at an Auto da Fè (Act of Faith), required that a like execution should be performed in his presence; and he beheld with joy forty victims devoted to torments and to death. One of them, a man of distinction requested a pardon: "No," replied he coolly, "were it my own son I would give him up to the flames, if he obstinately persisted in heresy."

The atrocities which the Spaniards committed on their conquests of some of the West Indian Islands, Mexico, and Peru, are almost beyond credibility that they should be performed by man, if we did not otherwise know the character of that people. The island of Hispania was their first settlement in the new world. They forced the inhabitants to labor as slaves for them digging gold, and, when the object of their cupidity was exhausted, they exterminated them, and the other natives most barbarously. Of two millions of inhabitants which the island contained when discovered by Columbus in 1492, scarcely 150 were alive in 1545, only about fifty years afterwards. The conquest of Mexico by Cortez and his followers was marked with equal horrors. During their whole progress through that country the route of the Spaniards was marked with carnage, injustice, perfidy, and deeds of atrocious cruelty. On one occasion sixty caciques or chiefs of the Mexican Empire, and 400 nobles were burned alive with the utmost coolness and deliberation; and, to com-

plete the horrors of the scene, the children and relations of the wretched victims were assembled and compelled to be spectators of their dying agonies. On another occasion when the inhabitants of the city of Mexico were dressed in their richest decorations, under a pretence of a pretended conspiracy, the Spaniards, in order to seize upon their valuable ornaments, fell upon them unsuspecting, and slaughtered 2000 of the nobles. Every right was violated by the Spaniards, which is generally held sacred by hostile nations. On every trival occasion the natives were massacred in great numbers, their lands apportioned among the Spaniards, the inhabitants reduced to the condition of slaves, and forced to labor, without payment, on all their public works, while the officers, distributed into different provinces, imitated all the excesses and barbarities of their avaricious commander.

In the seige of Mexico alone no less than 100,000 natives are said to have fallen by the sword, besides those who perished by famine and other causes connected with warfare; but, in their retreat from the capital, the Spaniards suffered a just retribution for their enormities, for numbers of them were butchered by the enraged Mexicans, and those who were taken alive were carried off in triumph to the temples, and sacrificed, with all the cruelty which revenge could invent, to the god of war, while their companions at a distance heard their dismal screams and piteous lamentations.

Equal atrocities were committed in the expedition of Pizarro to Peru. In order that they might obtain the golden treasures of this country, they resorted to the basest treachery, and exercised the most cold blooded cruelties. Under the fairest professions of amity they seized upon the Inca or Emperor of Peru, who had received them in a friendly manner and had commanded his attendants to offer the strangers no injury, and slaughtered, with deliberate and unrelenting fury, above 4000 of his attendants, who never offered the least resistance, after which they passed the night in the most extravagant exultation over the plunder they had acquired from the bodies of the slain. The Inca, in order to regain his liberty, promised them as many vessels of gold as would fill an apartment 22 feet long, 16 feet wide, and 8 feet high, and, after having collected the promised treasure from all parts of his kingdom, and fulfilled his agreement, they not long after, under the most frivolous pretext, condemned him to be burned alive. The booty they acquired by such atrocious means amounted to about ten millions of dollars in gold. The day appointed for the division of this prey was the festival of St. James, the patron saint of Spain; and, although assembled to divide the spoils of an unoffending people, obtained by treachery, cruelty and

slaughter, they had the hypocrisy and audacity to commence the transaction with a solemn invocation of the name of God, as if they expected heaven's blessing to descend upon the wages of their iniquity. It would be difficult to conceive that any beings exist in any region of the universe with worse moral character than these Spaniards proved themselves to be; and it shows what an ineffably bad being man is capable of becoming when he chooses to work out the evil principles of his nature, and to give reins to his depraved passions and propensities. Here, indeed, we find the one characteristic extreme, that of badness; let us see before we finish our review of the nations called civilized, whether we shall be able to find the other extreme, that of goodness; for in the beginning of this review we stated that the two extremes exist in principle in man, either of which he may develop if he chooses, to an almost unlimited degree.

The savage practice of bull-fighting which was long in vogue in Spain, and which fascinated all classes from the prince to the peasant, presented spectacles of suffering of animals and men at which one may be allowed to shudder. It is said they were prohibited in 1805, to the deep regret of the most numerous part of the nation, and that another entertainment, an image of the bull-fight, was substituted in their place, and is still in some places retained. The bull-fights may be said to have represented the gladiatorial shows which were held at Rome, and in the principal cities of the Roman empire for many centuries; in which gladiators (swordsmen) trained for the purpose—for the most part slaves or prisoners of war—fought with wild beasts for the entertainment of the people, who, in great numbers, surrounded the amphitheatre. These gladiatorial exhibitions were abolished by the Emperor Honorius, in A.D. 404.

The cruel practice of the bull-fight does not argue a high state of civilization for the nations that delight in it. Under an impression of his great superiority in the scale of being, over the brute creation, man has always been accustomed to treat the lower orders of animals with excessive cruelty. This, however, does not seem so much to be wondered at since he is so cruel to his own kind; it is all the working out of the evil principle within him. We may assume with certainty that the sufferings of these bulls and horses, wounded and dying, were quite as intense and exquisite, as were those of the wounded and dying men. And these animals were equally worthy of pity, if not more so, since they were not the cause of their sufferings, which was altogether unnecessary, and could as well have been avoided, and since they could not speak to make their sufferings known. Men should remember that the lower orders of animals have

feelings as they have themselves, and are susceptible in most cases, if not all, of as exquisite pain and suffering. We are often very much affected at seeing animals, especially horses, treated with such inconsideration and cruelty. They are made to draw too heavy loads, to travel too fast and to work too long hours, upon, perhaps, a scanty allowance of food by men who seem as thoughtless as they are themselves and infinitely more cruel. We have been a short time ago in a large city where the practice is to a great extent to yoke but one horse to a hack, which in all other cities with which we are acquainted is accustomed to be drawn by two horses, and still this horse is made to travel equally fast up and down hill, and to draw equally heavy loads (as many as they can get into the carriage), as if there were two horses attached. When men come to know what they really are, and that all other animals have feelings as well as themselves, and are as susceptible of pain and suffering; that they are always under the Creator's eye, who is everywhere present to see and know what they do; and that they are accountable for the manner in which they treat these animals which he has entrusted to their care, which are also His creatures, they will then recognize the propriety, as well as necessity, of treating their animals more considerately and better than they have generally hitherto been accustomed to treat them.

The empire of Austria has long been a leading state in Europe. Until the ascendancy of Prussia in our day she had the pre-eminence among the German States. Like Russia and Prussia, in later times, she made herself great at the expense of her neighbors, absorbing one neighboring state after another until she attained her present dimensions. She comprises in her dominions various nations and languages, and her people generally are less enlightened than are the other German nations. The prevailing religion in Austria is that of Rome, and this nation like France has always been a stout supporter of the Papacy. As that state rose out of part of the Roman Empire, and has always been under the influence of Rome, most that will be necessary to say here with regard to its moral character is that it partook of the character of the Roman Empire in its two aspects of civil and religious, and the character of the Roman Empire we shall have to speak of more fully in the latter part of this book. Savage warfare has always there been practiced; the principles of the Inquisition have there been carried out; and the Romish Church, as in other European states, has for many centuries there held sway both over the souls and bodies of men. So that in our review of the moral character of Rome, which will have especial reference to the doings of the Roman Church, we may have

glimpses of that of Austria, as Austria since her rise has always been a principal member of that Church.

The modern Kingdom of Italy has very lately been formed. From a comparatively limited extent of territory, comprised in the state of Sardinia, Victor Emmanuel, with the assistance of some able and talented statesmen, has extended his dominions over all Italy. He has even added the Papal States to his dominions and made the city Rome his national capital. He is a man who (whatever his secret motives may have been, they are best known to himself), for doing so well for his people and for humanity at large, in the circumstances in which he was placed, is entitled to the consideration and respect of all civilized nations, and of all good people. Much fault has been found with him by Roman Catholics for having appropriated the Papal States; but in appropriating the Papal dominions he only took away from the Pope what did not belong to the Pope, and what, according to the voice of the people, the Pope was misgoverning, and restored to the Kingdom of Italy its ancient capital. The Popes have been accustomed to claim the Papal States and the city Rome as their dominions by right of donation by Constantine, which donation they claimed to have been confirmed nearly five hundred years after by Charlemagne. But history goes to prove the said donation of Constantine to have been a fiction, most probably of the eighth century, and its confirmation by Charlemagne to have been no better; for although both Pepin, the father of Charlemagne, and Charlemagne himself had pretended to make gifts and promises to the Popes of these dominions, yet Charlemagne at his death reckoned the city of Rome and the territories nominally governed by the Pope as part of his dominions; of this we may have occasion to speak again in the latter part of this work. The Pope, therefore, had no right to the dominion of Rome except the right of possession; and the vote taken in the Papal dominions to ascertain the will of the people on the subject plainly proved that they wished the government transferred to the King of Italy. It was then a matter of duty as well of right for him to assume the government of the Papal dominions. It is much to be hoped that he will proceed even farther in his laudable course, and, as he has been the liberator of Italy civilly, become also its liberator religiously from the shackles of Popish or Romish idolatry. The Italians only need to become more generally and liberally educated in order to fit them for this more perfect freedom. But to this universal education they need to be encouraged, and assisted, and as in Prussia, required to attend by the government. In time past in that country education was not only not permitted or encouraged, put positively interdicted. A

royal Sardinian edict, published in 1825, "directs that henceforth no person shall learn to read or write, who cannot prove the possession of property above the value of 1500 livres (about 300 dollars). The qualification for a student is the possession of an income to the same amount." The people of Italy, as well as those of the other European states, have too long been prevented from education, and kept enslaved, body and mind, by the diversified machinery of the civil and religious power of the Catholic church. But Italy, as the other European states, is a warlike power, and maintains a large standing army; yet it is hoped that, in the process of time, when her people have become enlightened by education and true religion, Italy, which has been the scene of so many conflicts, and has drunk the blood of so many myriads of the human race, shall become a peaceful nation; her government joining heartily with the other civilized nations in disbanding their armies and police, and in inaugurating and maintaing a reign of peace and righteousness in the world. There is much to be done, and some time will be required, in bringing the people of Italy, as well as of the other European nations, to that degree of enlightenment and civilization which we wish they had now attained. The sooner the movement is made in the direction we have indicated, and persistently carried out, the sooner will this great end be attained. The present and future rulers of Italy and of each of the other European states may, if they but will, do much toward the enlightenment and highest good of their people.

England is a nation of great power and influence. If it be enquired by what means this nation has come by her dominions, it may be answered that it was mainly by force of arms. The seven states of the Saxon Heptarchy waged war among themselves. After they had become united and their power became concentrated, England, under the Norman and other princes, carried on destructive wars with Scotland, Wales, Ireland and France, in the last-named country of which she maintained her power for some centuries. Scotland, however became united to England in more modern times and by peaceable means; and the rise of the English power to its present state has been mainly accomplished since the union of these two countries nearly three centuries ago, since when the united nation has been called Great Britain. By her conquests on sea she has secured the possession of extensive colonial territories, and by the maintenance of a great naval power she retains them. England's naval wars have been destructive of life, and very fertile in the increase of her power. Her wars with France, with the Dutch, with her own colonies in America, with Russia, with India and China, have been ferociously

carried on, and with great loss of life and property to the people of these countries as well as to herself. By savage warfare, then, England has attained and maintains her power and influence among the nations of the earth.

Without adverting to the oppressive landlord and tax system which is in practice in great Britain and Ireland, by means of which the great mass of the people cannot do much more in the acquisition of wealth than obtain a bare subsistence, in order the better to illustrate the moral character of Great Britain as a nation, we shall bring forward one or two instances of the manner in which she accumulated her wealth.

In another age it will perhaps scarcely be believed, and in this age it is very little known, that Great Britain, distinguished for her zeal in propagating Christianity throughout the heathen world, has for many years derived a revenue from the worship of the idol Juggernaut, and other idols of similar description at Gya, Allahabad, Trepetty, and other places in Hindostan. From the year 1813 to 1826, there was collected, by order of the British Government, from the pilgrims of Juggernaut alone about 1,360,000, rupees or $850,000, a great part of which was given to the support and maintenance of the abominable worship of this idol. Dr. Buchanan, in his "Christain Researches," states, from official accounts, that the annual expense of the idol Juggernaut presented to the British Government is as follows:

	RUPEES.	DOLLARS.
Expenses of the table of the idol	36,115 or	22,570
Expenses of his wearing apparel	2,712 or	1,695
Wages of his servants	10,057 or	6,295
Contingent expenses at the different seasons of pilgrimage	10,989 or	6,865
Expenses of his elephants and horses	3,030 or	1,890
" of his annual state carriage or car, and tower of the idol	6,713 or	4,195
	Rup. 69,616	$43,510

Forty-three thousand five hundred and ten dollars, paid annually by the British Government for the support of one idol, Juggernaut! Some of our readers will say they never expected that Britain, which has displayed so much zeal in the dissemination of Bibles and Testaments and Tracts and orthodox Christain doctrine, would be guilty of any such practice. In the item "wages of servants" is included the wages of the courtesans that are kept for the service of the temple.

Mr. Hunter, the collector of the pilgrim tax for 1806, told Mr. Buchanan that three state carriages were decorated that year at an expense of upwards of one thousand dollars, with English broadcloth

and baize. The following items show the gain of this association with idolatary at some of the principal idol stations in India :—

	RUPEES.
Net receipt of Pilgrim tax at Juggernaut for 1815	135,667
" " at Gya for 1816	182,876
" " at Allahabad for 1816	73,053
" " at Kashee-poor, Surkuree, Sumbal and Kawa, 1816	5,683
" " at Tripetty and Madras for 1811	152,000
	549,279

A rupee, though generally considered to be only of the value of half a crown or about sixty cents,* is said to be received in the case of the pilgrims of India as equivalent in value to one pound sterling or five dollars to an inhabitant of England; so that in this point of view rupees may be considered as equivalent to pounds sterling or five dollar pieces.

Mr. Hamilton, in his "description of Hindostan," as quoted by Mr. Peggs in his "Pilgrim Tax in India," states, with respect to the district of Tanjore, that "in almost every village there is a temple with a lofty gateway of massive architecture, where a great many Brahmins are maintained partly by an allowance from government. The Brahmins are here extremely loyal on account of the protection they receive, and also for an allowance granted them by the British Government, of 45,000 pagodas or 18,000 pounds annually, which is distributed for the support of the poorer temples." One can scarcely conceive of anything more inconsistent than the conduct of a nation, that professes itself to be Christian and will not allow that it is idolatrous, supporting a system of idolatry the most revolting, cruel, lascivious and profane? Yet a member of the British Parliament, C. Bullen, Esq., in his letter to the Court of Directors relative to Juggernaut in 1813, says: "I cannot see what possible objection there is to the continuance of an established tax, particularly when it is taken into consideration what large possessions in land and money are allowed by our government in all parts of the country for keeping up the religious institutions of the Hindoos, and the Mussulmans." From all parts of India multitudes of idol-worshippers or pilgrims annually travel many hundred miles to pay homage to the different idols alluded to above. A tax is levied on those pilgrims graduated according to the rank or circumstances of the pilgrim, and amounting from one to twenty or thirty rupees. Those travelling to Allahabad, for example, are taxed at the following rates; on every pilgrim on foot, one rupee; on every pilgrim with a horse or a palanquin, two rupees; on every pilgrim with an elephant, twenty

* This is the silver rupee; the gold rupee is valued at 29s. 2d. = $7.00.

rupees, etc. Vast numbers of deluded people flock to these temples every year.

In 1825, the number that arrived at Juggernaut was estimated at 225,000, and in some years they have been calculated to amount to more than a million. The deprivations and miseries endured by these people are almost inconceivable. Dr. Buchanan, who visited the temple of Juggernaut in 1806, gives the following statement: "Numbers of pilgrims die on the road, and their bodies generally lie unburied. On a plain near the pilgrim caravansera, one hundred miles from Juggernaut, I saw more than one hundred skulls; the dogs, jackals, and vultures seem to live here on human prey. Wherever I turn my eyes I meet death in one shape or other. From the place where I now stand, I have a view of a host of people, like an army, encamped at an outer gate of the the town of Juggernaut, where a guard of soldiers is posted to prevent them from entering the town until they have paid the tax. A pilgrim announced that he was ready to offer himself a sacrifice to the idol. He laid himself down on the road before the car as it was moving along with his arms stretched forward. The multitude passed him leaving the space clear and he was crushed to death by the wheels. How much I wished that the proprietors of Indian stock would have attended the wheels of Juggernaut, and seen this peculiar source of their revenue. I beheld a distressing scene this morning in the place of skulls, a poor woman lying dead or nearly so with her two children by her, looking at the dogs and vultures, which were near. The people passed by without noticing the children. I asked them where was their home, they said they had no home, but where their mother was. Oh, there is no pity at Juggernaut. Those who support his kingdom err, I trust from ignorance; they know not what they do."

"The loss of life," says Colonel Phipps, "by this superstition probably exceeds that of any other. The aged, the weak, the sick, are persuaded to attempt this pilgrimage, as a remedy for all evils. The number of women and children is also very great, and they leave their families and their occupations to travel immense distances with the delusive hope of obtaining eternal bliss. Their means of subsistence on the road are scanty, and their light clothing and little bodily strength are little calculated to encounter the inclemency of the weather. When they approach the temple they find scarcely enough left to pay the tax to government, and to satisfy the rapacious Brahmins; and, on leaving Juggernaut with a long journey before them, their means of support are often quite exhausted. The work of death then becomes rapid, and the route of the pilgrims may be traced by the bones left by the jackals and vultures, and the dead

bodies may be seen in every direction." It may be said, therefore, without any extravagance, that a certain portion of the British nation luxuriate upon the nicest dainties, and the choicest finery derived from the intolerable sufferings and the life's blood of the Hindoos! Do they? With regard to the number that perish on such occasions, Rev. Mr. Ward estimates that 4000 pilgrims perish every year on the route to and at holy places, an estimate which is considered by others as far below the truth. Captain F—— estimates those who died at Cuttack and Pooree, and between the two stations, at 5000. What a number of these deluded wretches must die before they reach their homes, many of them coming three, six, or nine hundred miles! Mr. M——, the European collector of the tax at Pooree, estimated the mortality at 20,000.

Juggernaut is the most celebrated station of idolatry in India. All the land within twenty miles is regarded as holy; but the most sacred spot is enclosed by a wall 21 feet high, forming a square of about 65 feet. Within this area there are about fifty temples, but the most conspicuous building consists of one lofty stone tower, 184 feet high and 28½ feet square inside. The idol Juggernaut, his brother Bulbudra, and his sister Subadra occupy this tower. The roofs are ornamented with representations of monsters; the walls of the temple are covered with statues of stone, representing Hindoo gods with their wives in attitudes grossly indecent. The three idols alluded to are wooden busts six feet high, having a resemblance of the human head, and are painted white, yellow and black, with frightfully grim and distorted countenances. They are clothed with spangled broadcloth furnished from the export warehouse of the British Government. The car on which Juggernaut is drawn measures 43½ feet high, has 16 wheels of 6½ feet diameter, and a platform 34½ feet square. The ceremonies connected with this idolatrous worship are in many cases exceedingly revolting and obscene. At Ranibut, in the Province of Gurwall, is a temple sacred to Rajah Ishwara, which is principally inhabited by dancing women. The initiation into this society is performed by anointing the head with oil taken from the lamp, placed before the altar, by which act they make a formal abjuration of their parents and kindred, devoting their future lives to prostitution; and the British Government by giving annually 512 rupees to the religious mendicants who frequent this temple, directly sanction this system of obscenity and pollution? Many temples of impurity exist in other places in Hindostan. Tavernier mentions a village in which there is a pagoda to which all the Indian courtesans come to make their offerings. This pagoda is decorated with a great number of naked images. Girls of eleven and twelve

years old, who have been bought and educated for the purpose, are sent by their mistresses to this pagoda to offer and surrender themselves to this idol. If, as we have seen, the French Government authorize prostitution at home, what do they more than the British Government does in India, only that they act a little more directly in the matter? Such an abominable practice is sure to bring its equivalent measure of punishment, sooner or later, upon the nation whose government allows or supports it.

In order to induce ignorant devotees to leave their homes, and commence pilgrimages to these scenes of impurity and idolatry a set of avaricious villains, termed pilgrim-hunters, are employed to traverse the country, and by all manner of falsehoods to proclaim the greatness of Juggernaut and their idols. They declare, for example, that the idol has now so fully convinced his conquerors (the British) of his divinity, that they have taken his temple under their own superintendency, and that they expend 60,000 rupees yearly to provide it with an attendance suitable to his dignity. These pilgrim-hunters *are paid by the British Government.* If one of them can march out 1,000 persons and persuade them to undertake the journey, he receives 1,500 rupees if they be of the lower class, and 3,000 rupees if they are persons belonging to the highest classes. And, what seems a very natural consequence, the procedure of the British Government in relation to this system has led many of the natives to suppose that the British people approve of the idolatrous worship established in India. A Hindoo enquired of a missionary: "If Juggernaut be nothing why does the company take so much money from those who come to see him?" Mr. Lacy, a missionary, who went to succour the destitute on the road to Cuttack, during one of the festivals, relates the following incident: "You would have felt your heart moved to hear, as I did, the natives say:—'Your preaching is a lie, for, if your Saviour and your religion are thus merciful, how do you then take away the money of the poor and suffer him to starve? It is indeed no wonder that when the natives see a poor creature lying, about to die for want, they should reflect that the two rupees he has paid as a tax would have supported his life." Nor should it be a pleasing reflection to an English mind that these two rupees form precisely the difference between life and death to many who have perished for want on their way home." Another missionary relates: "Passing one evening a large temple I caught a sight at one of the idols and exclaimed, sinful, sinful!! The native who was with me asked: 'Sir, is that sinful for which the company gives thousands?' A man said to me a few days ago, 'If the government does not forsake Juggernaut, how can you expect that we should?'" In this way

the efforts of the Christian missionaries to convert the Hindoos are in many instances rendered of no avail. Could not the British nation endure to be less wealthy, and refrain from increasing their stock of riches by the support and encouragement of such a polluted system of idolatry, attended with such an amount of suffering, deprivation and death to the people of India? But, doubtless, the great body of the British people are ignorant of any such practice being authorized or countenanced by their government. Or, do the British Government carry on this vile business till now? People should prefer to live on herbs, and go clothed in the coarsest garments, rather than luxuriate on the most delicious fare, clothed in the finest and costliest garments, derived from such an unspeakably abominable and polluted source.

Another glaring instance of British moral or immoral character is found in their imposition by force of the drug opium upon the Chinese. We have stated before that opium is derived from the juice of the poppy plant, which is cultivated largely in India. We shall now state some facts in relation to this subject from the work of a late writer on China, a Christian missionary, who has lived among the Chinese for a number of years, and is fully conversant with this subject:* "The profits of the opium trade to Great Britain are enormous; not less than twenty to twenty-five millions of dollars a year. According to the estimate of an English newspaper, published in China,† the total profits from the time when the trade began until the year 1854 were, in round numbers, three hundred and ten millions of dollars, and from that time to the present it is three hundred and forty millions more. The total is about six hundred and fifty millions in sycee silver, that is, silver without alloy paid by weight. This is the actual net profit to the producer upon a trade which amounts to from sixty to eighty thousand chests a year, which are worth in all from forty to sixty millions of dollars. The extent of the responsibility of the British Government for the production and sale of opium I prefer," says the writer, "to state in the words of one of its own subjects. The Calcutta correspondent of the *London Times* thus presents the case for the consideration of the readers of that influential paper: 'What,' says he, 'are the facts? As to Bengal, I have gone through the poppy fields of Shahabad, and have witnessed every detail of the manipulation in the enormous go-downs of Patna. Under a severe contract law, twice as penal as any that has ever been proposed for ordinary agricultural purposes, and scouted

* "China and the United States," by Wm. Speer, D.D., a missionary of the American Presbyterian Board.

† *The North China Herald* of Shanghai.

by England, advances of money are annually made to the peasants of Behar, Benares, and elsewhere.* The state lies out of these advances for a year. Its establishment of highly-paid officials, and oppressive or colluding native subordinates, supervises every detail, the preparation of the fields, the sowing, the weeding, the scraping of the capsules, the collection of the crude juice, its transit to the state factory, and its sale in Calcutta. Yet, in spite of its establishments, smuggling is the rule. The state of the case is this: China will have opium just as England will have gin, and Scotland whiskey. All facts go to show that the abuse of opium in China, though great, is by no means equal to that of alcohol in Europe. The moral question is, not whether China may be supplied with opium, but whether England as a nation, as the ruling power of India, ought, in its official and national character, to grow, manufacture, and export the drug, the use of which has, after two or three wars, been legalized in China. Yet this is the position of England at this moment in relation to three-fourths of the opium imported from India? What is the effect of the opium trade upon Christian missions? The writer and every man who has been engaged in the work of preaching the gospel, healing the sick, instructing the young, and disseminating the word of God, knows that the incessant and bitter objection urged by all classes to his efforts is that it is impossible that nations which carry opium in the right hand can carry any boon of mercy in the left. It (the opium traffic) is planting seeds of enervation, crime, and disease in the Chinese, who are coming to our shores, and creating corresponding vexation and injury to us; it keeps the sword of war continually unsheathed and wet with blood, the torch of conflagration constantly burning, and every puff of hostile wind distributing its sparks amidst materials which are ever ready to burn hotly; it makes the benevolent efforts of the preacher of the Gospel of mercy and of the Christian physician and teacher appear like shallow and abominable hypocrisy, and the word of God itself something false and hateful when offered by hands imbrued with so stupendous a crime against humanity and justice, against the conscience of man, and against the law of Heaven." Here we find a Christian nation itself the cause of the Gospel being virtually excluded from China, with its teeming population of four hundred millions of people. The same author says: "Would that it were possible to say that the hands of American merchants have not been stained by connivance

* It will be remembered that the opium is grown in British India, and is thence exported to China, and that the British Government has, by means of war, compelled the Chinese Government to admit it to their country, in which its sale is now legalized, as is well known by the latter to the great detriment of the Chinese people.

with the crime of the opium trade in China! We are grateful to God that it has not been made 'an official and national business to grow, manufacture and export the drug' by any other nation than Great Britain, and its Indian dependencies. But our ships have helped to convey and distribute the poison; our merchants have partaken to some extent of the profits of the work; and we have given it a garment of respectability by the deceitful pleas with which we have palliated its enormity." That unjust practice of forcing its commodities upon other nations against their will has of old been the policy of England. The reader may remember that the war which resulted in the independence of the United States, which until then were British colonies, arose from the British Government having undertaken to compel the colonists to receive its cargoes of tea against their will. In the case of the Americans they did not succeed in their undertaking, but in that of the Chinese they did after two or three wars, so that now the sale and use of the drug is legalized in that country. Great Britain, therefore, notwithstanding the progress she has made in the sciences and the arts, and the great efforts she has made in the dissemination of religious and other kind of knowledge, has yet much national injustice to answer for, and still far to advance before she has attained to true civilization, of which the practice of true Christian morality is the beginning and the ending: "Do unto others as you would have others do unto you."

Another unfavorable feature in the moral character of the British nation is the severity of its penal code. Among the variety of actions which men are daily liable to commit no less than 160 have been declared by Act of Parliament to be felonies without benefit of clergy, or in other words, to be worthy of instant death. Those who are found guilty of high treason are condemned by the law "to be hanged on a gallows for some minutes, then cut down while yet alive, the heart to be taken out and exposed to view, and the entrails burned." Though the most cruel part of this statute is said never to have been inflicted in modern times, yet its existence on the statute-book (does it now exist?) is a disgrace to the British nation, a disgrace which should be got rid of as quickly and as far as possible. Instead of diminishing the number of offenders experience teaches that crimes are almost uniformly increased by an undue severity of punishment. This was strikingly exemplified in the reign of Henry VIII., remarkable indeed for the number of its crimes, which certainly does not seem to have arisen from mildness of punishment. In that reign alone, says his historian, 72,000 executions took place *for robberies alone;* exclusive of the *religious murders*, which are known to have been so numerous as to amount, on

an average, to six executions a day, Sundays included, during the whole reign of that monarch.* The design of the institution of government is, or ought to be, to subserve the benefit of the governed, to advance their highest interests; but the government which will carry on such a wholesale slaughter among its people as that under the English monarchs did seems certainly to have another object in view, not for the benefit, but for the injury and destruction of its people.

If we enquire after the moral character of the United States as a nation, we shall find that it, too, has been affected with many of those imperfections which we have seen so glaringly to be in the case of those we have reviewed. By war it attained its existence as a nation, and by the exercise of war it has maintained its independence and integrity, as well as extended its dominions. By the war of the revolution, ending in 1776, the independence was achieved, and by that of 1812 it was maintained. The United States has also carried on a war with Mexico, as a result of which the territories of the former have been extended westward to the Rio Grande and the Pacific Ocean, over Southern California. The States have also carried on another great war with its own people, dark and fratricidal in its character, and which, though it may be thought to be productive of many good results, yet there are many reasons to deplore.

It appears that the wars which the first colonists carried on with the Indian tribes arose from their peculiar position in relation to those tribes; but there are reasons to believe that the Indians were taken advantage of in too many cases by the white settlers of the Atlantic States. In their advance inland they drove the Indians before them, and gradually exterminated them as they advanced. If it be enquired what has become of all the Indian tribes which once inhabited the Northern, the Southern, and the Western States to the Mississippi River; what has become of all the Indians that three centuries ago inhabited the Continent of America now thickly inhabited by white people? The answer is plain; they have in the main been exterminated by the whites, gradually, by means of war, and secretly. Many strange but likely stories are told by some of the old settlers around the Great Lakes of the ways in which they have known the Indians to be got rid of. And the means employed in one section of the country to get rid of them, or means equally effective, may also have been employed in other sections for the same purpose. Some of the Indians, doubtless, made their way into

* Hume: Reign of Heny VIII.

British America, still beyond the reach of the whites, and some of them are provided for by the United States Government in territories apportioned to them for a residence; but the greater part of the Indians must necessarily have suffered extermination by the whites in their gradual settlement of the country. Since the formation of the United States Government, however, the Indians that have submitted to it have been liberally dealt with, and a like liberal treatment has always been given by the British Government to the Indians settled within their North American possessions. And it may, perhaps, be considered that the Indians by their uncalled-for aggressions on the new comers, were, to a great extent, the cause of their own destruction. The two races might have lived together peaceably and prosperously if they had mutually cultivated and exercised toward each other the proper temper and spirit,—there was abundant room for all on the wide Contient of America,—but they were mutually jealous, it appears, and suspicious of each other; either did not feel themselves safe in the neighborhood of the other; and thus arose their mutual warfare. Heretofore, in the history of mankind we observe that when two races, speaking different languages, and differing from each other, perhaps, only triflingly in other respects, came face to face on the same soil, human barbarity has generally necessitated the yielding of the one to the other. Instead of the principle of benevolence, that of malevolence is usually practised in such cases. Cannot a new era, an era of benevolence, of self-denial, of humility and peaceful industry be inaugurated? It can, if each one living will do their part towards it by always cultivating and exercising the right temper and spirit.

The existence of slavery so long in the United States was the greatest moral reproach to the nation. The way, also, in which it was got rid of is a reproach. The pride and haughtiness of certain individuals of the rival parties—slave and free—kindled the flame of war, which for four years waged with such destructive violence. The result of the war—the abolition of slavery—was great, but how much better it would have been had the same result been accomplished by peaceful measures and means. Slavery is an evil, which every one must conscientiously know to be an evil, but because an evil exists must an equal evil be perpetrated in order to get rid of it? Should the proud hearts of the leaders of the South and North not bend to an act of legislation by which the slaves might be emancipated by means of an equitable purchase, and slavery abolished? The thing was not impracticable, for it had been done before by the British Government in the case of their West Indian slaves. Or, on the other hand, should not those who held the slaves in bondage

have acted benevolently toward them and set them free, and put them to work at a fair wages? It is time that such benevolence were exercised by human beings toward each other. It is said to be more blessed to give than to receive. Men have but a short time to live on this earthly scene, and though they be rich or poor, they will be all the happier and better for doing all the good that lies in their power, by acting benevolently and beneficently towards each other. There is no doubt of this. Let each one realize it for one's self. Your Creator is everywhere present, recognizes all your acts, and will be sure to reward the good acts, and, if you are unable to act, the good-will and intentions. You are also an accountable being, and will in yourself experience the consequences of your evil, whether of omission or of commission. A small moiety of the treasure which was expended in carrying on that atrocious war—the result of pride and selfishness in a few—might have been sufficient to have bought the slaves out at a fair price. And how many fathers, and husbands, and brothers, and sons, whom that war has laid low, would now be alive, a help and a comfort to their friends, and a blessing to their country! The emancipated negroes would be equally well off,—perhaps better,—the country much more prosperous, and the people much happier. America, both South and North, would thus have given proof of a higher state of civilization, and of a higher moral character, than it now can be admitted to have attained. How long before men come to realize that their duty is to deny self, to subdue and eradicate pride, and to act benevolently and charitably towards each other! May there not be less crime of a private and of a public nature committed in the United States? Will not each individual, old and young, male and female, in the republic, leave nothing undone which they can do to bring about the era of righteousness, and peace, when all shall enjoy and be satisfied with the fruits of their own integrity, industry and strictly moral living? The country which has hitherto been the refuge of the poor and oppressed of all nations may thus be rendered of still greater benefit to mankind.

Third, Illustrations from the nations called civilized especially in their religious aspect; First, from the history of the Catholic Church of the Roman Empire.

Heretofore in our review of the moral character of the civilized nations we have spoken of Rome and its empire with reference mainly to its civil aspect. Now we shall enquire what information history affords us as to the character and doings of the Catholic Church, whose head was the Pope. Hitherto we have not found that the

nations called civilized are exalted to a very great degree above those called uncivilized, in point of true morality (although they are exalted in some degree), so that our readers may ere this have begun to suppose that if the nations called civilized have much in their moral character to entitle them to the name civilized, it must be found in the religion they profess. We shall see.

The New Testament teaches us of the characters of the founders of the Christian Church. They are all said to have been men distinguished for self-denial, for humility, for charity, and for active industry in the cause which they espoused, and endeavored to promote. During the early ages of Christianity a goodly portion of the same spirit was manifested by the greater number of those who enrolled themselves as the followers of Christ. Even in the midst of the reproaches and persecutions to which they were subjected during the two first centuries of the Christian era, a meek and forgiving disposition, and a spirit of benevolence towards one another, and toward all mankind, distinguished them from the heathen around and constrained even their enemies to exclaim: "Behold how these Christians love one another!" But no sooner was the Church combined with the State in the days of Constantine than its native purity began to be sullied, and Pagan maxims and worldly ambition began to be blended with the pure doctrines of Christianity. Many of its professed adherents, overlooking the grand practical bearings of the Christian system, began to indulge in vain speculations concerning its doctrines which they could not understand; to substitute a number of unmeaning rites and ceremonies in the place of love to God and man, and even to persecute, and destroy all those who refused to submit to their opinions and decisions. Pride and ambition usurped the place of humility and meekness, and the foolish mummeries of monastic and ascetic superstition and austerity were substituted in the place of the active duties of justice and benevolence. Saints were deified; the power of the clergy was magnified; religious processions were appointed; pilgrimages were performed to the tombs of the martyrs; monasteries and nunneries without number were erected; prayers were offered up to the departed saints; the doctrine of the Trinity was instituted; the Virgin Mary was recognized as a species of inferior deity; the sign of the cross was regarded as capable of securing victory in all kinds of trials and calamities, and as the surest protection against the influence of malignant spirits; the bishops aspired after wealth, magnificence, and splendor, which they have not yet ceased to do; errors in religion were punished with civil penalties and bodily tortures; and the most violent disputes and contentions disturbed every section of the Catholic

Church; while the mild and beneficent virtues of the religion of Christ were either discarded or thrown into the shade. Of these and similar dispositions and practices we might give details which would fill many volumes, and which would convince every impartial mind that the true lustre of Christianity was sadly obscured, and its heavenly spirit almost extinguished, amidst the mass of superstitious observances, of vain speculations, and of angry feuds and contentions, which prevailed. Millot, in speaking of the state of the Church in the days of Constantine and the succeeding emperors, justly remarks: "The disciples of Christ were inspired with mutual feuds, still more implacable and destructive than the factions that were formed for or against different emperors. The spirit of contention condemned by St. Paul became almost universal. New sects sprung up incessantly and combatted each other. Each boasted its apostles, gave its sophisms for divine oracles, pretended to be the depositary of the faith, and used every effort to draw the multitude to its standard. The Church was filled with discord; bishops anathemized bishops; violence was called into the aid of argument, and the folly of princes fanned the flame which spread with such destructive rage. They played the theologists, attempted to command opinions, and punished those whom they could not convince. The laws against idolators were soon extended to heretics; but what one emperor prescribed as heretical was to another sound doctrine. What was the consequence? The clergy, whose influence was already great at court, and still greater among the people, began to withdraw from the sovereign authority that respect which religion inspires. The popular ferments being heightened by the animosities of the clergy, prince, country, law or duty were no longer regarded. Men were Arians, Donatists, Priscillianists, Nestorians, Eutychians, Monothelites, etc., but no longer citizens, or, rather, every man became the mortal enemy of those citizens whose opinions he condemned. This unheard-of madness for irreconcilable quarrels on subjects which ought to have been referred to the judgment of the church, never abated amid the most dreadful disasters. Every sect formed a different party in the State, and their mutual animosities conspired to sap its foundations."*

At the period to which these observations refer, two erroneous maxims appear to have generally prevailed, which tended to undermine the gospel system of morality, and which were productive of almost all the contentions, tumults, and massacres, which distinguish that era of the Christian Church. These were, first, that religion con-

* Millot's Modern Hist., Vol. 1.

sisted in the belief of certain abstract and incomprehensible dogmas, and in the performance of a multitude of external rites and ceremonies; and, second, that all heresies or differences of opinion on religious points ought to be extirpated by the arm of the civil power. Than such maxims nothing can be more repugnant to reason or subversive of genuine morality, or more inconsistent with the genius and spirit of the true religion of Christ. And yet, to this time, they are acted upon by four-fifths of the Christian world, notwithstanding the numerous examples which history furnishes of their futility and erroneous tendency. We shall state only two or three instances referring to this period. The Emperor Theodosius came to the throne of the Roman empire in the year 379, A.D. Being originally a pagan he was baptized into the Christian church in the second year of his reign, during a severe illness, which threatened his life, and on his recovery he professed great zeal for that church. Soon after his baptism, he dictated the following edict: "It is our pleasure that all the nations which are governed by our clemency and moderation should steadily adhere to the religion which was taught by St. Peter to the Romans, which faithful tradition has preserved, and which is now professed by the Pontiff Damasus, and by Peter, bishop of Alexandria, a man of apostolic holiness. According to the teaching of the apostles, and the doctrines of the Gospel let us believe the sole deity of the Father, the Son, and the Holy Spirit, under an equal majesty and a pious Trinity. We authorize the followers of this doctrine to assume the name of Catholic Christians; and as we judge that all others are extravagant madmen, we brand them with the infamous name of heretics, and declare that their conventicles shall not longer usurp the respectable name of churches.—Beside the condemnations of divine justice they must expect to suffer the extreme penalties which our authority, guided by heavenly wisdom, shall think proper to inflict upon them." *

Theodosius declared apostates and Manicheans incapable of making a will or receiving any legacy; and, having pronounced them worthy of death, the people thought they had a right to kill them as proscribed persons. He enacted a law condemning to the flames cousins-german, who married without a special license from the emperor. He appointed inquisitions for the discovering of heretics. He drove the Manicheans from Rome as infamous persons, and on their death ordered their goods to be distributed among the people. In the space of ten years, he promulgated at least fifteen severe edicts against nonconformists and heretics, more especially those who re-

* Gibbon's Rome.

jected the doctrine of the Trinity which, under his reign, was established by law; and to deprive them of every hope of escape he sternly enacted that if any laws or rescripts should be alleged in their favor, the judges should consider them as the illegal productions either of fraud or forgery. Leo, another emperor, "commanded every person to be baptized under pain of banishment, and made it a capital offence for any one to relapse into idolatry after the performance of that ceremony;" as if men could be made Christians by a forced baptism or by a law of the state. Such edicts clearly showed that whatever zeal those princes or the clergy might manifest in favor of the Christian religion, they were totally devoid of the true spirit, and ignorant of the means by which its benevolent objects were to be accomplished.

To illustrate the manner in which such edicts were carried into effect, the following instance may be stated: Hypatia, the daughter of Theon, the celebrated geometrician of Alexandria, exceeded her father in learning, and gave public lectures in philosophy with the greatest success; nor was she less admirable for the purity of her virtues, joined to an uncommon beauty, and every accomplishment that could adorn human nature. But that excellent woman, because she would not accept of the established religion, and was supposed to be active against St. Cyril, the bishop, became an object of detestation to the Christian multitude. A set of monks and desperadoes, headed by a priest, seized her in the open street, hurried her into a church, where they stripped her naked, lacerated her body with whips, cut her in pieces, and publicly burned her mangled limbs in the market place.* St. Cyril, who was suspected of having fomented this tragedy, had previously attacked the synagogues, and driven out the Jews; their goods were pillaged, and several persons perished in the tumult. Such conduct plainly demonstrates the tendency of the human mind to abuse power, for the purpose of revenge and persecution; and illustrates, also, what the ideas of these persecutors were of their pretended religion.

About this time, and afterwards also, vain speculations about abstruse and incomprehensible subjects occupied the mind and the time of theologists, engendered religious quarrels and disputes, and burst asunder the bonds of affection and concord. A play upon words and vain subtleties were substituted for clear conceptions and substantial knowledge; which instead of directing the faculties of the human mind to the proper objects, tended to obscure the light of reason, and to usher in the long night of ignorance, characterized

---

* Millott's Modern History.

as the Dark Ages. It was a prevailing madness with these early theologists, who were obstinately tenacious of their opinions, and it has been too much the case with certain modern theologists to dispute about doctrines which they claimed to be incomprehensible, to render them more obscure by their attempts to explain them, never giving the proper explanation, and perpetually to revive the most angry contentions.

The Arians rejected the divinity of Christ in order to maintain the unity of God; the Nestorians denied that Mary is the mother of God, and gave two persons to Jesus Christ to support the opinion of His having two natures. The Eutychians, in order to maintain the unity of the person, confounded the two natures in one. This sect became divided into ten or twelve branches, many of them, as the Gnostics of the Primitive Church, maintaining that Christ was merely a phantom or appearance of flesh, but not real flesh. The Monothelites maintained that Christ had only one will, as they could not conceive two free wills to exist in the same person. Another sect maintained that Christ's body was incorruptible, and that from the moment of His conception He was incapable of change and of suffering. This chimera the Emperor Justinian attempted to establish by an edict. He banished the patriarch Eutychius, and several other prelates who opposed his sentiments, and was preparing to tyrannize over the conscience of men with still more violence, when, after a long reign, death interposed, and removed him from this earthly scene.

In such vain and preposterous disputes as these the minds of professed Christians were occupied, notwithstanding the perils with which they were then encompassed by the invasion of the barbarians. Councils were held to determine the orthodox side of a question; anathemas were hurled against those who refused to acquiesce in their decisions; princes interposed their authority, and the civil power stood ready to compel men to profess what they did not believe and could not understand, while the essential truths of religion were overlooked, and its morality disregarded. "Religion," says Millot, "inspires men with a contempt of earthly vanities, a detestation of vice, and indulgence for the frailties of our neighbors, invulnerable patience in misfortune and compassion for the unhappy; it inspires us with charity and heroic courage, and tends to sanctify every action in common and social life. How sublime and comforting the idea it gives of the Divinity; what confidence in His justice and infinite mercy; what encouragement for the exercise of every virtue; wherefore, then, such errors and excesses on religious pretences? It is because heresy, starting up under a thousand different

forms, incessantly startles the faith by subtleties and sophistry, by which almost the whole energy of men's minds is absorbed in the contest. Disputes engender hatred; from hatred springs every excess; and virtue, exhausted with words and cabals, loses her whole power." How well it would be for the cause of genuine Christianity, and how promotive of the happiness of mankind, if the present and future generations would profit by the experience of the past!

As we advance in the history of the Christian Church through the Middle Ages the prospect becomes still more dark and gloomy: the human mind at that period appears to have lost its wonted energy and power of determination; the light of reason seemed well-nigh extinguished; sophisms and absurdities of all kinds were swallowed and left undigested, and superstition displayed itself in a thousand different forms; morality was smothered up under a heap of ceremonies, and arbitrary observances obtained the name of devotion; relics, offerings, pilgrimages, and pious legacies were thought capable of opening the gate of heaven to the most wicked of men; the Virgin Mary and the souls of departed saints were invoked; splendid temples and shrines were erected to their honor, and their assistance was entreated with many fervent prayers; an irresistible efficacy was attributed to the bones of martyrs, and to the figure of the cross, in defeating the temptations of Satan, in warding off all sorts of calamities, and in healing the diseases of the body and of the mind; works of piety and benevolence, as in Romish countries at the present day, were viewed as consisting chiefly in building and embellishing churches and chapels, in endowing monasteries, in hunting after the relics of martyrs, in procuring the intercession of saints by rich oblations, in worshipping images, in pilgrimages to holy places, in voluntary acts of mortification, in solitary masses, and in a variety of similar services which could easily be reconciled with the commission of the most abominable crimes; so that the worship of the invisible Diety, the Creator of all, was exchanged for the worship of hair, bones, fragments of fingers and toes, tattered rags, images of saints, and bits of rotten wood, supposed to be the relics of the cross; the canonizing of saints became the fruitful source of frauds and abuses throughout the Christian world; lying wonders were invented, and fabulous histories and legends composed to celebrate exploits that were never performed, and to glorify persons that never had a being; and absolution from the greatest crime could be easily obtained either by money or by penance. During the eighth and ninth centuries, there were perpetual contests as to images, whether or not they should be worshipped; one emperor permitted, another prohibited, their worship. An emperor, in the beginning of his reign, as Leo

the Isaurian, bows down in abject homage to them, and thereby secures the favor of the Pope and his prelates; in the latter part of his reign he breaks them to pieces, and thereby obtains their displeasure and active opposition. Hence arose the term Iconoclasts, or image-breakers, in contradistinction to image-worshippers. The sect of the Iconoclasts was supported by six Emperors, and the whole Catholic church was involved in a noisy conflict between these two opposing parties for a period of one hundred and twenty years.

The absurd principle that religion consists of acts of austerity produced the most extravagant behavior in certain devotees and reputed saints. They lived among the wild beasts; they ran naked through the lonely desert, with a furious aspect, and with all the perturbations of madness and frenzy; they prolonged their wretched lives by grass and wild herbs; avoided the sight and conversation of men, and remained almost motionless for several years exposed to the rigor and inclemency of the seasons; and all this was considered as an acceptable method of worshipping the Diety, and of obtaining His favor.

But of all the instances of superstitious frenzy which disgraced those times none was held in higher veneration than that of a certain order of men called Pillar Saints. These were persons of a most singular and extravagant turn of mind, who stood motionless on the top of pillars, expressly raised for this exercise of their patience, and remained there for several years the objects of the admiration and applause of a stupid and wondering populace. This strange superstitious practice began in the sixth century, and continued in the east for more than six hundred years. The name and genius of Simeon Stylytes have been immortalized by the invention of this aerial penance. At the age of thirteen years, the young Syrian deserted the profession of a shepherd, and threw himself into a monastery. After a long and painful novitiate, in which he was repeatedly saved from pious suicide, Simeon established his residence on a mountain, about thirty or forty miles to the east of Antioch. Within the space of a Mandra, or circle of stones, to which he had attached himself by a ponderous chain, he ascended a column, which was successively raised from the height of nine to that of sixty feet from the ground. In this last and lofty station the Syrian monk resisted the heat of thirty summers, and the cold of as many winters. Habit and exercise instructed him to maintain his dangerous situation without fear or giddiness, and successfully to assume the different postures of devotion. He sometimes prayed in an erect attitude with his arms outstretched in the figure of a cross, but his most familiar practice was that of bending his meagre skeleton from the

forehead to the feet; and a curious spectator, after numbering 1244 repetitions of this act, at length desisted from the endless account. The progress of an ulcer in his leg might shorten, but it could not disturb this celestial life; and the patient monk expired without descending from his column. This voluntary martyrdom must have gradually destroyed the sensibility both of the mind and body; nor can it be presumed that fanatics who unnecessarily torment themselves are susceptible of any lively sympathy for the rest of mankind. A cruel, unfeeling temper has distinguished the monks of every age and country; their stern indifference is inflamed by religious hatred, and their merciless zeal has strenuously administered the office of the Inquisition.

To the same irrational principles are to be attributed the revolting practices of the Flagellants, a sect of fanatics who chastised themselves with whips in public places. Numbers of persons of this description of all ages and sexes made processions, walking two by two, with their shoulders bare which they whipped until the blood ran down in streamlets, in order to obtain the mercy of God and appease His anger against their wickedness. They held, among other things, that flagellation was of equal virtue with baptism and the other sacraments; that the pardon of all sins would be obtained by it, without the merits of Jesus Christ; that the old law of Christ was soon to be abolished, and that a new law, enjoining a baptism of blood to be administered by whipping, would be substituted in its place. The enormous power that came to be vested in the ecclesiastical rulers was another source of immorality, and of the greatest excesses. The Pope and the clergy reigned over the greatest part of the Catholic church without control, and made themselves masters of almost all the wealth in every country in Europe. Many of them perpetrated crimes of the deepest dye, and the laity, thinking themselves able to purchase the pardon of their sins for money, followed without scruple the example of their pastors. Every Christian country swarmed with lazy monks, and the most violent contentions, animosities and hatred reigned among their different orders, as well as between all ranks and orders of the clergy. "Instead of consecrating ecclesiastical censures solely to spiritual purposes, they converted them into a weapon for defending their privileges, and supporting their pretensions. The priesthood, which was principally designed to bless, was most frequently employed in cursing. Excommunication was made the instrument of damning instead of saving souls, and was inflicted according to the dictates of policy or revenge." The great and powerful, even kings and emperors, were excommunicated when it was designed to rob or to enslave them;

and this invisible engine, which they wielded with an effective and a sovereign hand, was used to stir up dissensions among the nearest relations, and to kindle the most bloody wars. The generality of priests and monks kept wives and concubines without shame or scruple, and even the papal throne was at some times the seat of debauchery and vice. The possessions of the church were either sold to the highest bidder or turned into a patronage for the bastards of the incumbents. Marriage, wills, contracts, the interests of families and courts, the state of the living and the dead were all converted into instruments for promoting their credit and increasing their wealth. It was, therefore, a necessary consequence of such a state of things that vices of every description abounded, that bad morals prevailed, and the benevolence of the divine law was trampled under foot.

The ignorance and superstition which the corruptions of Christianity introduced were dexterously improved by the ecclesiastical rulers to enrich themselves, and drain the purses of the deluded masses. Each rank and order of the clergy had its peculiar method of fleecing the people and increasing its revenues. "The bishops," says Mosheim, "when they wanted money for their private pleasures, granted to their flock the power of purchasing the remission of the penalties imposed upon transgressors by a sum of money, which was to be applied to certain religious purposes, or, in other words, they published indulgences, which became an inexhaustible source of opulence to the episcopal orders, and enabled them to form and execute the most difficult schemes for the enlargement of their authority, and to erect a multitude of sacred edifices, which augmented the external pomp and splendor of the Church. The abbots and monks, equally covetous and ambitious, had recourse to other methods for enriching their convents. They carried about the country carcasses and relics of the saints in solemn procession, and permitted the multitudes to behold, touch, and embrace those sacred and lucrative remains, at certain fixed prices. By this raree-show, the monastic orders often gained as much as the bishops did by their indulgences."* The Pope at length assumed the chief power over this profitable traffic, and "when the wants of the church, or the demon of avarice prompted them to look out for new subsidies, published not only a universal but a plenary remission of all the temporal pains and penalties which the Church had annexed to certain transgressions. They even audaciously usurped the authority which belongs to God alone, and impiously pretended to abolish even the punish-

* Mosheim's Hist., 12th Cent.

ments which are reserved in a future state for the workers of iniquity, a step which the bishops, with all their avarice and presumption, had never once ventured to take."*

By the sale of such indulgences the money was obtained by means of which the magnificent structure of St. Peter's Church at Rome was built. Pope Leo X. published a system of indulgences, suited to all ranks and characters of men, and offered a plenary remission to all who would contribute their money to the furtherance of this and other projects he had in view; so that the foundations of this edifice, which has been so much admired, were laid, and its superstructure reared by the most diabolical and impious means, by the exercise of perfidy and insatiable avarice, and by the usurpation of the prerogatives of the Deity. This daring impiety was carried to such a pitch that indulgences were farmed out to the highest bidders, who, to make the most out of their bargain, procured the ablest declaimers, and the most eloquent preachers, to extol the efficacy, and enhance the value of such wares. A graduated scale of prices was arranged for the remission of sins of every description, not even excepting the most horrid crimes, such as the murder of a father, mother, or wife; so that for ninety livres, or a few ducats, or a less sum, a pardon might be procured from the "Apostolic Chancery," for crimes which all civilized nations determined to be worthy of death. All the provinces of Europe were in a manner drained to enrich those ghostly tyrants, who were perpetually gaping after new accessions of wealth, in order to augment the numbers of their friends, and the stability of their dominions; and every stratagem was used to rob the subject without shocking the sovereign, and to levy taxes under the specious mask of religion.

Such was the shameless rapacity which then prevailed, that even in that age of ignorance and servility, the eyes of the people began to open, and to perceive the vileness, impiety, and false pretensions of the ecclesiastical orders. Not alone private persons, but princes and sovereign states began to exclaim loudly against the despotic dominion of the Popes, the fraud, avarice, and injustice that prevailed in their councils, the arrogance and extortion of the legates, and the unbridled rapacity and licentiousness of the clergy and monks, until at length the Protestant reformers, with the double object, doubtless, of strengthening their own cause and weakening that of their opponents, brought to light such a scene of extortion and profligacy as had never before been exhibited with such effrontery in any country under heaven.

---

* Mosheim's Hist., 12th Cent.

The public worship of the Deity was at that time little more than a pompous round of ceremonies, adapted rather to dazzle the eye of sense than to enlighten the understanding, or affect the heart. The sermons of the clergy were little else than fictitious reports of miracles, and prodigies, insipid fables, wretched quibbles and senseless jargon, which deceived the multitude instead of instructing them. The authority of the holy Mother Church, the obligation of obedience to her decisions, the merits and virtues of the saints, the dignity and glory of the Blessed Virgin, the efficacy of relics, the adorning of churches, the endowing of monasteries, the utility of indulgences, and the burnings of purgatory, were the principal subjects on which the clergy descanted, and which employed the pens of eminent doctors of divinity, because they availed to fill the coffers of the Mother Church, to augment her magnificence, and to advance her temporal interests as represented in the Papacy.

A certain class of persons connected with the Romish Church, designated by the title of the "Pope's Nephews," have always distinguished themselves by their arrogance and rapacity. An Italian writer of the 17th century, who appears to have been a moderate Catholic, when sketching the characters of the existing cardinals, and the Pope's Nephews, relates, among other curious and melancholy pieces of history, the following circumstances: "A friend of mine had the curiosity to calculate the money that had been given to the Nephews, and he began at the year 1500, and, after a great deal of pains he found issuing from the treasury of the Church, about seventy millions of double ducats,* all delivered into the hands of their kindred. And this is to be understood of visible moneys; for of private and invisible sums there may perhaps be twenty millions more. And those Romans that are within the town, and have more time to cast up what has been extorted from them, if they would take the pains to examine it more strictly, I am satisfied, would find it much more." The author, like a zealous Catholic, makes the following reflection on this fact: "If these seventy millions of double ducats had been spent in persecuting heretics, or in making war upon infidels, where would any infidel be? These seventy millions would have been enough to have overrun all Asia, and (which is of importance too), the princes would have contributed as much more had they seen the Popes more tenacious against their kindred, and more free to the soldiers who were fighting for Christ."

The same author states that "Innocent X., to satisfy the fancy of a kinswoman, spent a hundred thousand crowns upon a fountain, yet

---

* A double ducat is about $2.50 in silver, or about $5.00 in gold.

with great difficulty could scarce find forty thousand to supply the emperor in his war with the Protestants;" and "this good Pope would nevertheless leave to his cousin, to the house of Pamphylia, and other houses allied to that, about eight millions of crowns, with which sum they flourish in Rome to this very day." Again: "The Barbarini were in Rome at the same time, and enjoyed a rent of four hundred thousand crowns, and yet in a war of so much importance to the Catholic religion they could not find forty thousand. But, Oh, God! (I speak it with tears in my eyes) aginst the most Catholic princes of Italy whole millions were nothing; they could turn the cross into the sword to revenge their particular injuries; but, in the relief of the emperor who was vindicating the Christian faith, they could not find as much as a few hundreds." "The infidels laugh, and the heretics rejoice to see the wealth of the Church so irreligiously devoured, while the poor Christian weeps at their merriment." "The heat and passion which the Popes show hourly for their Nephews to gain principalities for them, to bestow pension upon pension upon them, to build palace upon palace for them, and to fill their coffers with treasures to the brim is that which cools the resolution of the zealousest prince, and exasperates the infidels in their wicked designs. A great shame it is indeed that the heretics should have more ground to accuse the Catholics than the Catholic has to impeach the heretic." And he adds the following apostrophe in reference to this subject: "Oh God! to what purpose will they keep so many jewels at Loretta, so much consecrated plate at Rome, so many abbeys for their Nephews, so much wealth for the Popes, if, abandoning their Commonwealth, and refusing it that humane supply that is necessary for the celestial glory, it be constrained to submit to the Ottoman power, which is threatening it now with the greatest effect? If the wealth of the Popes be devoured, the benefices of the cardinals given to the priests of Mahomet, the abbeys of the Nephews usurped by the Turks, the sacred vessels of Rome profaned by these infidels, and the seraglio adorned with the gems of the Loretta, God grant my eyes may never see that spectacle!" *

Thus, it appears, from the testimony of Catholic writers, that the immense sums which were wrested from the people by every species of fraud and extortion, instead of being applied to the maintenance and defence of the Church, as was pretended (which application, in the state in which the Church was then, would not have been an over-good one either), were wasted in luxury and extravagance by the Popes and their minions in selfish gratifications, in riot and

* See a volume in Italian entitled "Il Cardinalismo di Sancta Chiesa." Or the History of the Cardinals of the Roman Catholic Church.

debauchery, in accumulating wealth on the heads of their relatives and favorites, most of whom were infidels and debauchees, in gratifying the pride and avarice of courtesans, and in the most romantic and ambitious projects. The single structure of St. Peter's, at Rome, is said to have cost the enormous sum of sixty millions of dollars, and in our age and country would have cost, at least, three times that amount. What immense sums, then, must have been expended on similar objects intended merely for worldly ostentation by the Catholic hierarchy throughout the whole of christendom, besides the millions that were expended in their pursuits of tyranny, sensuality and debauchery. The mind, when it reflects upon it, is almost overwhelmed at the thought that such sacrilegious enormities should have been so long continued with impunity, and that such immense treasures should have been consecrated for so many ages to the support of the kingdom of darkness, while the true Christian church was allowed to pine away in poverty, and compelled to hide its head in dens and caves of the earth.

The Pope's revenues as a temporal prince, at the beginning of this century, have been calculated to amount to at least a million of pounds sterling, or five millions of dollars a year, arising chiefly from the monopoly of corn, the duties on wine and other products. Over and above these, vast sums were continually flowing into the papal treasury from all the Roman Catholic countries for dispensations, indulgencies, canonizations, annats, the pallia, the investitures of bishops archbishops, and other resources. It is computed that the monks and regular clergy who were absolutely at the Pope's devotion did not amount to less than two millions of persons, dispersed through all the Roman Catholic countries, to assert his supremacy over princes, and to promote the interest of the Church. The revenues of these monks and priests did not fall short of two hundred millions of pounds sterling, or a thousand millions of dollars, besides the casual profits arising from offerings and the people's bounty to the Church, who are taught that their salvation depends upon this kind of charity. In Spain alone the number of ecclesiastics, including the parochial clergy, monks, nuns, syndics, inquisitors, etc., amounted to 188,625. The number of archbishops was eight, and of bishops forty-six. The archbishop of Toledo alone had a revenue, which, according to the most moderate computation, amounted to four hundred and fifty thousand dollars a year. In Portugal, in 1732, there were reckoned above 300,000 ecclesiastics out of a population of less than two millions. The patriarch of Lisbon had an annual revenue of one hundred and fifty thousand dollars, and the revenue of the patriarchal church above $570,000. It is stated by Mr. Locke in the diary of

his travels that the expense of the ecclesiastical establishment in France, at the time that he resided in that country, amounted to about twenty-four millions of pounds sterling, or one hundred and twenty millions of dollars. This may give some idea of what must have been the immense treasures of wealth collected by the Roman Popes and bishops, prior to the Reformation, when the whole of the European nations were in subjection to them, and when the newly discovered countries in the Western World were plundered to augment their revenues and to satiate their rapacity!

The theological speculations in which these ecclesiastics indulged corresponded to their degrading practices, and tended to withdraw the mind from the substantial realities both of science and virtue; sophisms and falsehoods were held forth as demonstrations. They attempted to argue after they had lost the rules of common sense. The cultivation of letters, as well as of the arts, was neglected; eloquence consisted in futile declamations; and true philosophy was lost in the abyss of scholastic and sophistical theology. They endeavored to render theology a subject of metaphysical speculation, and of endless controversy. A false logic was introduced which subtilized upon *words*, but gave no idea of *things*, which employed itself in nice and refined distinctions concerning objects and operations, which lay beyond their limited understandings, and which *could not* be understood. The following are only a few instances out of many that might be brought forward of the questions and controversies which occupied the attention of bishops and scholarly doctors, and gave rise to furious contentions: Whether the conception of the Blessed Virgin was immaculate? Whether Mary should be denominated the mother of God or the mother of Christ? Whether the bread and wine used in the Eucharist were digested? In what manner the will of Christ operated; and whether He had one will or two? Whether the Holy Spirit proceeded from the Father and the Son or only from the Father? Whether leavened or unleavened bread ought to be used in the Eucharist? Whether souls in their intermediate state see God or only the human nature of Christ? It was disputed between the Dominicans and Franciscans whether Christ had any property. The Pope pronounced the negative proposition to be a pestilential and blasphemous doctrine, subversive to the Catholic faith. Many councils were held at Constantinople to determine what sort of light it was which the disciples saw at Mount Tabor. It was solemnly pronounced to be the eternal light with which God is encircled, and which may be termed his energy or operation, but is distinct from his nature or essence. The disputes respecting the presence of Christ in the Eucharist led to this absurd

conclusion, which came to be universally admitted: "that the substance of the bread and wine used in that ordinance is changed into the real body and blood of Christ," and consequently when a man eats what has the appearance of a wafer, or a piece of bread he really and truly eats the body and blood and soul of Christ; and when he afterwards drinks what has the appearance of wine, he drinks the very same body and blood, and soul, which, perhaps not a minute before he had wholly and entirely eaten!

At the period to which we now allude the authenticity of a suspected relic was proved by bulls. Councils assembled and decided upon the authority of forged acts with regard to the antiquity of a Saint, or the place where his body was deposited; and a bold impostor needed but to open his mouth to persuade the multitude to believe whatever he pleased. To feed upon animals strangled or unclean, to eat flesh on Tuesday, eggs and cheese on Friday, to fast on Saturday, or to use unleavened bread in the service of the mass, were by some considered as indispensable duties, and by others as vile abominations. In short the history of the period is a reproach to the human understanding, an insult offered to reason, and a libel on the benevolent spirit which breathes through the true religion of Christ.

Nothing can be more directly opposed to the spirit which this religion inculcates, than the temper and conduct of many, if not all, of those who arrogated to themselves the character of being "God's vicegerents on earth," and who assumed to themselves the sole direction and control of the Christian church. In persons who laid claim to functions so sacred and divine it might have been expected that, at least, the appearance of piety, humility and benevolence would have been exhibited before the Christian world. But the history of the Popes and their satellites displays almost everything which is directly opposed to such heavenly virtues. Their avarice, extortion, and licentiousness became intolerable and excessive, even to a proverb. To extend their power over the kingdoms of the earth, to increase their wealth and revenues, to live in opulence and splendor, to humble earthly rulers, to alienate the affections of their subjects, and to riot in the lap of luxury, sensuality, and debauchery, seemed to be the great objects of their ambition. Instead of acting as the heralds of mercy, and the ministers of peace, they thundered anathemas against all who dared to call in question their authority; kindled the flames of discord and civil wars, armed subjects against their rulers, led forth hostile armies to battle, and filled Europe with confusion, devastation and carnage. Instead of applying the mild precepts of Christianity and interposing their authority for reconciling

enemies, and subduing the jealousies of rival monarchs, they on many occasions delighted to widen the breach of friendship and to fan the flame of animosity and discord. Dr. Robertson, when adverting to the personal jealousies of Francis I. and Charles V., remarks: "If it had been in the power of the Pope to engage them in hostilities, without rendering Lombardy the theatre of war, nothing would have been more agreeable to him than to see them waste each other's strength in endless quarrels.*

Some of our readers may have ere this become impatient and disgusted with the characters which have been drawn of ghostly leaders of the people. They may, however, remember that these are but a few of the facts of a similar kind which history presents before us, and that they are not exaggerated. The Son of Man comes into the world not to destroy men's lives but to save them; but in such instances we behold his pretended vicars preparing and arranging the elements of discord, laying a train for the destruction of thousands, and tens of thousands, and taking a diabolical delight in contemplating the feuds, the massacres, and the miseries, which their infernal policy had created. The decrees from the papal throne, instead of breathing the mildness and benevolence of the gospel, became thundering curses and sanguinary laws, and a set of fanatic enthusiasts or a lawless banditti were frequently appointed to carry them into effect. Not resting satisfied with the insurrections and the desolations they had caused among the European nations, they planned an expedition for the purpose of subduing Western Asia, and consequently of massacring its inhabitants. Urban II., about A.D. 1095, travelled from province to province levying troops, even without the consent of their princes, preaching the doctrine of "destruction to the infidels," and commanding the people in the name of God to join in the *holy war*. Peter the Hermit, represented by historians as a man of hideous figure and aspect, covered with rags, walking barefooted and speaking as a prophet, inspired the people everywhere with an enthusiasm similar to his own. St. Bernard ran from town to town haranguing the populace, performing pretended miracles, and inducing all ranks, from the emperor to the peasant, to enroll themselves under the banner of the cross. Thousands of wicked and abandoned debauchees were thus collected; and bishops, priests, monks, women and children were all enrolled in the *holy army*. A plenary absolution of all their sins was promised, and if they died in the contest they were assured of a crown of martyrdom in the world to come. With hearts burning with fury and revenge this army of banditti, without discipline,

* Robertson's Charles V. Book II.

or sufficiency of provisions, marched in wild confusion through the Eastern parts of Europe, and at every step of their progress committed the most horrible outrages. So inveterate was their hatred of the Jews wherever they found them, that many of these unfortunate beings, both men and women, murdered their own children in the midst of the despair to which they had been driven by those infuriated madmen; and when they had arrived at Jerusalem, and had taken the city by assault, they made a universal slaughter of the infidels. Such was the way in which the successors of the apostles and the vicars of Christ displayed their general benevolence, and their love for the souls and bodies of men.

The establishment of the Inquisition is another mode in which the tyranny and cruelty of the Church of Rome have been displayed. The office of inquisitors of the faith was first instituted under Theodosius, and was, doubtless, retained and exercised to a greater or less extent in all the ages subsequent to him. But the Court of the Inquisition, which became so terribly notorious, was founded in the Twelfth Century, by Father Dominic and his followers, who were sent by Pope Innocent III., in order to excite the Catholic princes to extirpate heresy, and was, some time after, put into execution in Spain with awful effect. It is scarcely possible to conceive of any institution more diametrically opposed to the dictates of justice and humanity, and to the genius of the religion of the Gospel, than is this infernal tribunal. The proceedings against the unhappy victims of that court were conducted with the greatest secrecy. The person granted them as counsel was not permitted to converse with them, except in the presence of the inquisitors; and when they communicated the evidence to the accused persons they carefully concealed from them the name of the authors. The prisoners were confined for a long time until they themselves, by the application of the torture, became their own accusers; for they were neither told their crime nor confronted with witnesses. When there was no shadow of proof against the accused person, he was discharged after suffering the most cruel tortures, a tedious and dreadful imprisonment, and the loss of the greatest part of his effects. When he was convicted and condemned, he was led in procession with other unfortunate victims on the festival of the "*Auto da fé*" (Act of Faith), to the place of execution. He was there clothed with a garment painted with flames, and with his own figure surrounded with those of dogs, serpents, and devils, all open-mouthed, as if ready to devour him. Let the reader for a moment imagine himself in this situation, at the mercy of these fiendish men, simply because he could not conscientiously confess his belief of their absurd doctrines; he will thus the better realize

the position of these victims. Such of the prisoners as declared that they died in communion with the Church of Rome were first strangled, and then burned to ashes. Those who died in any other faith were burned alive. The priests told them that they left them to the devil, who was standing at their elbow to receive their souls, and carry them with him into the flames of hell; as if there could possibly be any more real devil than these priests themselves, or any more real flames than those to which they subjected their victims. Flaming fuzees fastened to long poles were then thrust against their faces, until their faces were burned to a coal, which was said to be accomplished with the loudest acclamations of joy among the thousands of spectators. At last, fire was set to the furze at the bottom of the stake over which the criminals were chained so high, that the top of the flame seldom reached higher than the seat they sat on; so that they were roasted rather than burned. There could not be a more lamentable spectacle; the sufferers continually crying out while they were able: "Pity for the love of God," etc.; yet it is said to have been beheld by people of all sexes and ages, with transports of joy and satisfaction; and even the monarch, surrounded with his courtiers, has sometimes graced the scene with his presence, imagining in his wicked ignorance that he was performing an act highly acceptable to God.* And yet there are amongst us Protestants, calling themselves "High Churchmen" and what not else, who are really Papists and Jesuits except in name. How long before the cause of truth and humanity is asserted? How long before the preachers of deceit and falsehood are left to preach to the walls or to the winds? And what were the crimes for which those dreadful inquisatorial punishments were inflicted? Perhaps nothing more than reading a book which had been condemmed as heretical by the holy office; assuming the title of freemason; irritating a priest, or mendicant friar; uttering the language of a free thinker; declaiming against the celibacy of the clergy; insinuating hints or suspicions respecting their amours or debaucheries; or throwing out a joke to the dishonor of the Virgin Mary, or, at most, holding the sentiments of a Mahometan, or a Jew, or of the followers of Luther or Calvin.

In the year 1725, the inquisitors discovered a family of Moors at Granada in Spain, peaceably employed in manufacturing silks, and possessing superior skill in the exercise of this profession. The ancient laws supposed to have fallen into disuse were enforced in all their rigor, and the wretched family were burned alive.†

On the entry of the French into Toledo during the Peninsular

---

* Bourgoing's Modern State of Spain. Enc. Brit. Art. Inquisition. † Id

war, Gen. Lasalle visited the place of the Inquisition. The great number of instruments of torture, especially those for stretching the limbs, and the drop-baths which cause a lingering death, excited horror even in the minds of soldiers, hardened in the field of battle. One of these instruments, singular in its kind for refined torture, and disgraceful to humanity and the name of religion, deserves particular attention. In a subterraneous vault adjoining the audience chamber stood in a recess in the wall a wooden statue made by the hands of monks, representing the Virgin Mary. A gilded glory beamed round her head, and she held a standard in her right hand. Notwithstanding the ample folds of the silk garments that fell from her shoulders on both sides, it appears that she wore a breastplate, and upon a close examination it was found that the whole surface of the body was covered with extremely sharp nails, and small daggers or blades of knives, with the points projecting outwards. The arms and hands had joints and their motions were directed by machinery, placed behind the partition. One of the servants of the Inquisition was ordered to make the machinery manœuvre. As the statue extended its arms and gradually drew them back, as if she would affectionately embrace and press some one to her heart, the well-filled knapsack of a Polish grenadier supplied for this time the place of the poor victim. The statue pressed it closer and closer; and when the director of the machinery made it open its arms and return to its first position, the knapsack was found pierced two or three inches deep, and remained hanging on the nails and daggers of the murderous instrument.

This infamous tribunal of the Inquisition is said, between the years 1481 and 1759, to have caused 34,658 human beings to be burned alive; and between 1481 and 1808 to have sentenced 288,214 to * the galleys or to perpetual imprisonment. In the Auto of Toledo in February 1501, sixty-seven women were delivered over to the flames for Jewish practices. This tribunal was exceedingly severe in its action against the Jews, who suffered in great numbers, and, as the heretics, they were condemned for very slight offences. A priest, who did not put up for being a zealot, wrote thus of the Jews: "This accursed race were either unwilling to bring their children to be baptized, or if they did they washed away the stain on returning home. They dressed their stews and other dishes with oil instead of lard; abstained from pork; kept the Passover; ate meat in Lent; and sent oil to replenish the lamps of their synagogues, with many other abominable ceremonies of their religion. They entertained no

* Histoire Abrégée de l'Inquisition.

respect for monastic life; and frequently profaned the sanctity of religious houses by the violation or seduction of their inmates. They were an exceedingly politic and ambitious people, engrossing the most lucrative municipal offices, and prepared to gain their livelihood by traffic, in which they made exorbitant gains, rather than by manual labor or mechanical arts. They considered themselves in the hands of the Egyptians, whom it was a merit to deceive and pilfer. By their wicked contrivances they amassed great wealth, and thus were often able to ally themselves by marriage with noble Christian families." The Inquisition entertained accusations against high and low, both Jews and Christians, upon pretexts the most frivolous as well as grave; and condemned by punishments, varying from death by fire to simple penance, delinquents who could not say they believed what to their mind was a lie. It accepted evidence, which even in its own day would not have been admitted in a civil court of law; and the pretexts upon which condemnation frequently proceeded were such as to make them marvellous even in a barbaric age. Tortures of the most exquisite and excruciating kind were practised on the accused to make them confess or to induce them to accuse others; and the hateful system of espionage and secret prison-houses were adopted by the Inquisition at every place where its courts were established. The evidence on which Jews were condemned would be simply ludicrous had it not been so terrible in its effects. An author of high standing remarks on this subject: "It was considered good evidence of the fact, *i. e.*, Judaism, if the prisoner wore better clothes, or cleaner linen on the Jewish Sabbath than on the other days of the week; if he had no fire in his house the preceding evening; if he sat at table with Jews, or ate the flesh of certain animals, or drank a certain beverage held much in estimation by them; if he washed a corpse in warm water, or when one was dying turned one's face to the wall; or, finally, if he gave Hebrew names to his children, a provision most whimsically cruel, since, by a law of Henry II., he was prevented, under severe penalties, from giving them Christian names." Such testimony being accepted, the number of the condemned must, of course, be legion: and in the interval between the beginning of January and the beginning of November, 1451, the first year in which the Inquisition was put into terribly active force, in Spain, there had perished by fire in Seville no less than 298 persons. Notwithstanding the plague which in this year visited Seville, sweeping off 15,000 of the inhabitants, the Inquisition still continued its fiendish work; so that by the end of the year, or up to the ensuing first of January, 2000 persons, many of them the most learned and respectable of the day, had perished at the stake in the province of Andalusia. Twice

that number having managed to escape, were burned in effigy, and 17,000 were condemned to lesser punishments; of which the least must have been a terrible infliction. Some few years after this, when one Deza came into power as Inquisitor-General in Spain, in the first 8 years he presided at Seville, he caused 2,592 persons to be burned alive, to say nothing about 35,000 condemned to various other punishments, short of death, but illustrating that the tender mercies of the wicked are cruel. When the Reformation began to be proclaimed, the work of the inquisitors increased, and several hundreds of persons were annually burned alive in various parts of Spain, as the consequence. But not only in Spain did the Inquisition carry on its work so devilishly: in her colonies, especially in South America and Mexico, the cruel office was set up, and the Indians who escaped the cruelties of the colonists as civil governors, experienced the rigorous punishment of them as religionists, and destroyed themselves in large numbers rather than fall into their hands. It is wonderful that there was no actual rebellion against the Inquisition in Spain, which continued for three centuries doing its terrible work of human destruction. Yet there was no upraising against it. Men hated but feared a tribunal, whose spies were all around, even in the bosom of the family, and which dealt its blows so secretly and suddenly, and with such awful effects. Nine hundred families were burned alive in the Duchy of Lorraine, in France, for being witches, by one inquisitor. Under this accusation it is said that upward of 30,000 women have perished by the hands of the inquisitors.*

Torquemada, that infernal arch-inquisitor of Spain, brought into the Inquisition, in the space of fourteen years, no less than 80,000 persons, of whom 6,000 were condemned to the flames and burned alive with the greatest pomp and exultation; and of that vast number there was not, perhaps, a single person who was not more pure in religion and morals than their fiendish persecutors. †

Does the Deity, then, whom the Inquisition professes to serve, take such intense delight in the sufferings of human beings? Has that Being, whose sun cheers the habitations of the wicked as well as the good, commanded such blood-thirsty monsters to act as his ministers of vengeance, to torment and destroy his rational creatures? Does the doctrine of the gospel, which they profess to believe, inculcate such practices? The very thought is absurd and blasphemous. If they would do as God requires of them, to do good and be good, live godly lives, no such institution as the Inquisition would ever exist, nor any other evil work. But it is men themselves, of

---

* Inquisition Unmasked. † Kaime's Sketches.

their own free will who inflict these sufferings upon their fellows. Man is the author, the agent, as he is the object of the cruelty. But some, perhaps, will suppose that *the devil* hardens man's heart, and prompts him to the perpetration of such infamous crimes as that of roasting his fellow-men over a slow fire. Well, that is a very true supposition in a certain sense. But really who or what is the devil? Why, he is the man himself, who acts according to his own will, and practices such unspeakable wickedness. Yes, my readers, man himself is that evil being, by what ever name he may be called; of which fact you have partial evidence in the foregoing statements. Can anything be conceived of, as more intensely evil than a human being who will seize and subject his fellow-human beings to such unspeakable tortures as those peculiar to the Inquisition, and then roast them to death over slow fires, as we see these men to have done? The foregoing statements are of facts which we may believe to have occurred, just as if we were eye-witnesses of every one of them. The blood of these tens of thousands who have been so cruelly and mercilessly sacrificed, cries unto us from the ground, to tamper no longer with hypocrisy and deceit, to lay aside that old theory of a devil, or any Being leading men to do evil, against their will and alleged as an excuse for their evil acts, and to make men stand on their own bases, and account them responsible for their conduct and acts. In a preceding part of this book we have shown that not only the globe on which we live is a concentration of spirit, but that man also is a spirit, and, behold, here we perceive him in the spirit of evil developed, we may say, to almost an infinite extent. The existence of cruelty in men evidences that the perpetrators of it are ignorant of the true God. They have no true knowledge of him, for if they had they would not be cruel. God is manifested in a human being patiently enduring for the truth, and for righteousness' sake amid all opposition from adverse influences, visible and invisible. And the devil is manifested in him who inflicts suffering undeservedly or wantonly upon the true and righteous man, or upon any human being. In short words God is manifested in the life and conversation of the truly good and righteous man; and the devil is manifested in the life and conversation of the evil and actively wicked man. And thus we have found a proper application for the term God, which means he that is good; and also of the term devil, which means he that is evil; and hence it is seen that the term Deity includes both of these, and infinitely more in its fullest extent, and as we have used it in the beginning of this book. In the New Testament the apostle John, in his 1st Epistle, says that "God is love;" and in the same Epistle, as well as in his 2d, that "love is the keeping of the commandments;"

and in another place of the New Testament it is said that "love is the fulfilling of the law;" therefore it is quite evident that God is manifested in the human being that keeps the commandments, or fulfills the law, which means the same thing; that is, in the man who truly is and does good, lives a life of godliness. But in the case before us, as we have said, man is the sufferer, and man inflicts the suffering. Man is the author and agent as well as the object of the suffering. When a man commits an offence against the laws of his country, the law looks to the man himself for satisfaction for it. It looks not after a supposed or an imaginary being, of whatever name; it looks after the real being, the direct perpetrator of the crime. The individual has committed an offence against mankind, and the latter looks to the individual himself for atonement for it. He would not be listened to, if, when brought before the Judge, he sought to justify himself by leaving the blame of his crime upon an imaginary being. Even so there is no necessity any longer of men blaming any other being than themselves for the evil they commit. The life of godliness implies a denial of pride and self; and here we repeat the true God is manifested in the character and conduct of the man who, in his daily walk and conversation, during his life long, evinces self-denial, long-suffering, humility, gentleness, meekness, truth and righteousness, who, in short, cultivates and displays all the true Christian graces, subjectively and objectively. Men can be good if they will. They can also be evil if they will. Will men not henceforth universally choose to be good? How amiable the character of the man or woman who displays the spirit of charity and benevolence to all around, and to all mankind! And many, many such we have in the world in our time. But how unlovely the character of one who displays the spirit of hatred and malignity to one's fellow-human beings to the extent we have seen it displayed in the case of the inquisitors, or to a far less extent! The Deity is everywhere present, and though unseen, his character, as indicated by the beneficent operations of nature around us, and by the testimony of good men of the past, condemns the hellish practices of the infamous agents of that superstition, whose character we have been reviewing.

The horrid practice of dragooning, which was used by the Romish church for converting supposed heretics, was another melancholy example of religious cruelties and fanaticism. In the reign of Louis XIV. of France, his troops, soldiers, and dragoons, entered into the houses of the Protestants, where they marred and defaced their furniture, broke their looking-glasses, let their wines run about their cellars, threw about and trampled under foot their stock of provis-

ions, turned their dining-rooms into stables for their horses, and treated the proprietors with the severest contumely and cruelty. They bound to posts mothers that gave suck, and allowed their sucking infants to lie languishing in their sight for several days and nights, crying and gasping for life. Some they bound before a great fire, and after they were half roasted let them go. Some they hung up by the hair and some by the feet in chimneys; smoked them with wisps of hay until they were suffocated. Women and maids were hung up by their feet and by their armpits, and exposed stark naked to public view. Some they cut and slashed with knives, and, after stripping them naked, stuck their bodies with pins and needles from head to foot, and with red hot pincers took hold of them by the nose and other parts of the body, and dragged them about the room until they made them promise to be Catholics, or until the cries of the wretched victims, calling upon God for help, induced them to let them go. If any endeavored to escape from those cruelties they pursued them into the fields and woods, where they shot at them as if they were wild beasts; and they prohibited them from leaving the kingdom on pain of the galleys, the lash, and perpetual imprisonment. On such scenes of desolation and horror the Romish clergy feasted their eyes, and made them a matter only of laughter and sport.* What fiendish crimes for those calling themselves civilized to perpetrate! Could an American savage or a New Zealander have devised more barbarous and exquisite cruelties!

In the Island of Great Britain the flames of persecution have sometimes raged with unrelenting fury. During the last two or three years of the short reign of Queen Mary, it is computed that 277 persons were committed to the flames, besides those who were punished by fines, confiscations, imprisonments, or otherwise. Among those who suffered by fire there were five bishops, twenty-one clergymen, eight lay-gentlemen, and eighty-four tradesmen: one hundred husbandmen, fifty-nine women, and four children. Hunter, a young man of about nineteen years of age, was one of the unhappy victims of the Zeal of Queen Mary for Popery. Having been inadvertently betrayed by a priest to deny the doctrine of transubstantiation, he absconded to keep out of harm's way. Bonner, that notorious popish executioner, threatened ruin to the father if he did not deliver up the son. Young Hunter, hearing of his father's imminent peril, presented himself, and was burned to death instead of being rewarded for his filial piety. A woman of the island of Guernsey was brought to the flames without regard to her advanced pregnancy, and she was de-

* Enc. Brit. Art. "Dragooning."

livered of a child in the midst of the flames. One of the guards snatched the infant from the flames to save it, but the magistrate who superintended the execution ordered it to be thrown back, being resolved, he said, that nothing should survive which sprung from a parent so obstinately heretical.* The Protestant reformers also did somewhat in the work of persecuting and burning those who opposed their tenets; but their doings we shall have necessarily to advert to in the latter part of this book.

When we consider on the one hand the purity of faith and morals which generally distinguished the victims of persecution; and on the other, the proud, pampered priests and prelates, abandoned without shame to every species of wickedness, we can scarcely find words sufficiently strong to express the indignation and horror which arise in the mind when it views the striking contrast, and contemplates such scenes of impiety and crime. Could a religion which breathes peace and good will to men be more basely misrepresented; or do the annals of the human race present a more striking display of the perversity and moral badness of mankind than we have in the case of the Catholic hierarchy? To represent religion as consisting in the belief of certain incomprehensible dogmas, and then to undertake to compel men to believe these dogmas, which they could not possibly understand, and to inspire them to benevolence by racks and tortures and fires, is as absurd as it is impious and profane, and represents the Deity as delighting in the torment and death, rather than willing the life and salvation, of his creatures.

Wherever religion is viewed as consisting chiefly in the observance of a number of absurd and unmeaning ceremonies, it is to be expected that the pure morality inculcated in the New Testament, and in the Ten Commandments, will seldom be exemplified in human conduct. This is strikingly the case in those countries, both of the Eastern and Western world, where the Catholic religion, both Greek and Romish, reigns supreme. Mr. Howison, in his "Foreign Scenes," when speaking of the priesthood in the island of Cuba, says: "The number of priests in Havana exceeds four hundred. With a few exceptions they neither deserve nor enjoy the respect of the community. However, no one dares openly to speak against them. In Havana the church is nearly omnipotent and every one feels himself under its immediate jurisdiction. Most persons, therefore, attend mass regularly, make confessions, uncover when passing a religious establishment of any kind, and stand still on the streets or stop their volantos, the moment the vesper bell begins ringing.

* Kaime's Sketches.

But they go no farther, and the priests do not seem at all anxious that the practice of such individuals should correspond to their profession. The priests show by their external appearance that they do not practice those austerities which are generally believed to be necessary concomitants of a monastic life. The sensual and unmeaning countenances that encircle the altars of the churches, and the levity and indifference with which the most sacred parts of the services are hurried through, would shock and surprise a Protestant were he to attend mass with the expectation of finding the monks those solemn and awe-inspiring persons which people who have never visited Catholic countries often imagine them to be." This account of Mr. Howison we know to correspond with fact; for we have had a like account from a person who had resided in Cuba for some time. Of the city of Montreal in Canada the Roman Catholics number much the largest part of the population. The Church of Rome flourishes there, and its worship is carried on with great pomp and ceremony. We were present there one Sunday of late, June 11th, 1871, when the Feast of *Corpus Christi* was celebrated with great eclat. A grand procession took place, which when moving extended nearly a mile and a half in length. There were the various orders of the nuns, the Gray, Black nuns, etc.; and of the clergy, Friars or Monks, each having (as we suppose) its appropriate place in the ranks. Here and there at intervals in the long procession were schools of boys dressed neatly in black or gray suits, and schools of girls dressed in white with white flowing veils. Some of these boys and girls, we learn, were wards of the church, attending school in the convents; and they appeared intelligent and cheerful. Here and there were societies of men, who, as we were informed, belonged to the Temperance and other orders, and of women who did not appear to belong to any particular order, but were out displaying their zeal for the church. At the head of each column or order was borne a silken flag variously figured, each flag having inscribed upon it the motto of the order, mostly in French or Latin. At intervals they were chanting lustily the hymns of the occasion to time kept by some of the priests; and they sung in French or Latin. The sidewalks along the line of march and the avenues leading to it, as well as the windows and balconies, were crowded with spectators. When the canopy approached under which was borne the Corpus Christi, and accompanying which the bishop and other clerical dignitaries were supposed to be, arrayed in their gorgeous robes of office, the Catholics on both sides of the line of march uncovered their heads, and knelt down on the sidewalk or on the side of the street, or wherever they happened to be, until the canopy had passed.

This operation of uncovering and kneeling was repeated at every point of the way along which the procession moved. It seems, indeed, strange that such senseless ceremonies should be practised in British America, in the latter part of the 19th century. The practice of the Romish clergy, who, giving their whole attention to the subject of religion, must know better things, of imposing thus upon an ignorant and credulous populace, appears, to say the least, immoral.

The following extract is from a modern writer on Italy: "When Vesuvius thunders aloud, or when an earthquake threatens them with destruction, when the fiery streams vomited from the roaring mouth of the volcano roll on, carrying desolation over the plain below, when the air is darkened by clouds of smoke and showers of ashes, the Neapolitans will fall on their knees, fast, do penance, and follow the procession barefooted; but as soon as the roar has ceased, and the flame has disappeared, and the atmosphere has recovered its wonted serenity, they return to their wonted mode of life, they sink again to their former level, and the tinkling sounds of the tumberella call them again to the lascivious dance of the tarentella." As an evidence of the litigious character of the Neapolitans, the same author remarks: "That there is scarcely a landholder but has two or three cases pending before the courts; that a lawyer and a suit are indispensable appendages of property; and that some of the principal families have suits that have been carried on for a century; and for which a certain sum is yearly appropriated, although the business never advances; and at last the expenses swallow up the whole capital." "The infinite numbers of churches," says another late writer, "is one of the most efficient causes of the decline of the religion of Rome, whose maxims and practices are diametrically opposite to those of the Gospel. The Gospel is the friend of the people, the consoler of the poor. The religion of Rome, on the contrary, considers all nations as great flocks, made to be shorn or eaten according to the good pleasure of the shepherd; for her the golden lever is the lever of Archimedes. The favors of the Church are only showered on those who pay; with money we may purchase the right to commit perjury and murder, and be the greatest villain at so much per crime, according to the famous tariff printed at Rome, entitled "Taxes of the Apostolic Chancery." In a conversation which Bonaparte had with his friends at St. Helena, on the subject of religion, as related by Las Casas, in his journal, the Emperor said, among many other things: "How is it possible that conviction can find its way to our hearts, when we hear the absurd language, and witness the acts of iniquity of the greatest number of those whose business it is to preach to us? I am surrounded with priests who preach incessantly

that their reign is not of this world, and yet they lay hands on all they can get. The Pope is the head of that religion from heaven, and he thinks only of this world, etc. The Emperor ended the conversation by desiring my son to bring him a New Testament, and taking it from the beginning he read as far as the conclusion of the speech of Jesus on the mountain. He expressed himself with the highest admiration at the purity, the sublimity, the beauty of the morality it contained, and we all experienced the same feeling." Had Napoleon, in his youth, taken that which he now heard read as the rule of his life, and lived according to it, what an amount of human suffering and destruction, which he caused, might have been spared, and how much a happier man he would have lived and died himself! Such facts as these we have adduced may give some idea of what the state of morality is in all Catholic countries, and what may be the height of civilization to which they have attained.

Second, from the history and observation of Protestantism.

Now, if we take a cursory glance at the Protestant branch of the Catholic Church, we shall observe a similar spirit in operation in it, as we have seen prevailed in the early Church under the Christian Roman emperors. The Church was at that time split up into a number of sects, each distinguished from the other by its peculiar tenets. Protestant Christians are also divided into a great number of sects, each distinguished from the others by its peculiar tenets and opinions as to mode of worship, Church government, etc. The differences between these sects which, in time past, were wide, are now becoming much narrower. All these sects profess to believe the orthodox Catholic creeds, such as the Apostles' Creed, the Nicene Creed, and, some of them, the Athanasian Creed, and the two orthodox sacraments of Baptism and the Lord's Supper; but their belief in these creeds, etc., are very general, and they all differ from each other in many particulars.

The Protestant Church has been distinguished to a considerable extent by the spirit of persecution which raged with such unmitigating violence in the Romish Church. The Reformation had scarcely been begun in Germany and England, when a series of persecutions were begun against dissenters from the doctrines of the reformers; and it is of late that these persecutions have ceased. Luther and Calvin did their part in this work in the continental countries of Europe; and notwithstanding the unjust and cruel punishments which English Protestants endured at the hands of Popish priests and princes, a short time only elapsed after they had themselves

risen to power before they began in their turn to harass their dissenting brethren with vexations, and persecutions, and fines, and imprisonments, until many of them were compelled to seek a dwelling-place in a distant land. And shortly after the English independents had established themselves in America, they, in turn, set on foot a persecution against the Quakers no less furious than that to which they had themselves been subjected in the country from which they had fled. They apprehended and imprisoned a number of those peaceably disposed and worthy persons, and seized upon the books they had brought out from England with them, and burned them. By a law which had been enacted against heretics in general, sentence of banishment was pronounced against them all; and another law punished with death all Quakers who should return into the jurisdiction after banishment; and it is a fact that four persons suffered death under this impolitic and unjust law.*

Nor did the reformed clergy in Scotland lose sight of that magisterial bearing, which was assumed by the Romish Clergy. Upon a representation in 1646 from the commission from the Church of Scotland, James Bell and Colin Campbell, bailiffs of Glasgow, were committed to prison by the Parliament, merely for having said that "kirkmen meddled too much in civil matters." † And even so late as the middle of the last century, when Whitefield, Wesley, and other earnest and pious men began to address the ignorant villagers of England upon the important subject of religion, "a multitude has rushed together, shouting and howling, raving and cursing," and accompanying their ferocious cries and yells with loathsome or dangerous missiles, dragging or driving the preacher from his humble stand, forcing him and those who wished to hear him to run for their lives, sometimes not without serious injury before they could escape. And these barbarous tumults have in many cases been well known to be instigated by persons, whose advantages of superior condition in life, or express vocation as instructors of the people, has been infamously lent in defence of the perpetrators, against shame or remorse or legal punishment for the outrage. And there would be no exaggeration in affirming that since Wesley and Whitefield began to conflict with the heathenism of that country, there have been in it hundreds of instances answering to this desciption. Yet the well-meaning and zealous men, who were thus set upon by a furious rabble of many hundreds, the foremost of whom acting in direct violence, and the rest venting their savage delight in a hideous blending of ribaldry and execration, of jibing and cursing, were taxed with a

* Morse's American Geography. † Kaime's Sketches.

canting hypocrisy or a fanatical madness, for speaking of the prevailing ignorance in terms suitable to the state of the case.

But we need not go back over half a century in order to find instances of religious intolerance among the Protestant communites and churches; our own times unhappily furnish examples of an intolerant and persecutiing spirit, though we are happy to be able to say that this spirit is fast disappearing among Protestants. About fifty years have elapsed since the Methodist chapel in Barbadoes was thrown down, and demolished by the "mob-gentry," and with the connivance of the public authorities of that island;* and Mr. Shrewsbury, a worthy missionary at that station, was obliged to flee for his life. Previous to this outrage he suffered insult, contumely, and reproach. He was abused as a villain, and hissed at on the streets, not by the mere rabble, but by the great vulgar, by merchants from their stores, and individuals in the garb of gentlemen. By such characters his chapel was surrounded and partly filled on Sunday, during the hours of worship. Their glass bottles had been previously prepared and filled with a mixture of oil and asafœtida, and all on a sudden they were thrown with great violence among the people, and one was aimed at the head of the preacher; and during the whole time of worship, stones were rattling against the chapel from every quarter. On the next Sabbath an immense concourse of people assembled, breathing out threatenings and slaughter, and from twenty to thirty of the gentlemen mob planted themselves around the pulpit, apparently ready to perpetrate any mischief. Men wearing masks, and having swords and pistols, came galloping down the street, and presenting their pistols fired them at the door; and it was originally designed to have fire-crackers among the females, to set their clothes on fire. At length on an ensuing Sabbath this execrable mob, consisting of nearly two hundred gentlemen and others, again assembled with saws and hammers, axes, crowbars, and every other instrument necessary to execute their infamous purpose, and in the course of a few hours, the lamps, benches, pews, pulpit, and even the walls, were completely demolished. They entered the dwelling-house of the preacher, broke the windows and doors, threw out the crockery-ware, chopped up the tables, chairs, and every article of furniture; tore the preacher's manuscripts and destroyed his library of more than three hundred volumes. All this was done under the light of the full moon, in the presence of an immense crowd of spectators, without the least attempt being made either by the civil or military authorities to check them, while the unfortunate

* Report of the Wesleyan Missionary Society in 1824. Debates in Parliament, 1825.

preacher with his wife in an advanced state of pregnancy had to flee to a neighboring island to save his life! Such is the civilized and humane conduct of gentlemen of the 19th century, gentlemen who would no doubt consider it very unhandsome were they compared to the Vandals and Tartars or to the rude and barbarous savages of Caffraria or New-Zealand. How utterly abominable is the pride, hypocrisy, and deceit of the human heart exhibiting itself in such disgraceful and wicked proceedings? And such emissaries, often weak-minded and giddy-headed, in common parlance having no mind of their own, are sometimes set on to their barbarous work, perhaps by the sneering suggestion of others who are not so easy to be discovered, and, who if they are suspected and questioned, will not only pretend their total ignorance of it, but express their sympathy with the sufferer, although they are themselves the real and prime causes of the whole barbarity. Several instances of this kind have come under our own observation, one of which we shall relate. In a college * which we for some time attended, we had a worthy man for our president, a man, we had reason to believe, of a good Christian temper, and of a sound missionary spirit. He was accustomed to teach certain branches of knowledge, and had a recitation room, as the professors, set apart for the purpose of teaching in. Into this recitation room, situated on the second story, and containing benches, chairs, fire apparatus, tables, books, etc., there was brought one night a full-grown cow; and what must one think was the surprise of the president on his coming next morning to meet his class, at finding such a tenant occupying his recitation room, which last, indeed, was in an exceedingly disordered and filthy state! Some of the giddy-brained students who were discovered to have done this disgraceful deed suffered such penalties as the president and faculty thought proper to impose; but any careful observer who was present and knew the circumstances of the president in relation to some other influentials, would at once suspect that those who performed the wrongful transaction were not the prime causes of it, but were incited to it by perhaps the sneering suggestion or remark of another, who, were he earnestly asked about it afterwards, would promptly disclaim all knowledge or intention on his part, concerning it before it happened, and would most likely pretend the deepest sympathy for the sufferer. Such is the deceit of the human heart; and such are the devious ways of the old serpent. This worthy man was soon afterwards made a bishop, which office he now holds.

About the same time of that transaction which we have related

---

* The college to which we refer here is not that from which we graduated.

as taking place in regard to the Methodist church at Barbadoes, the authorities of Demerara set on foot a persecution against Mr. Smith, a missionary from the London Society, under various pretexts; but his real crime in the eyes of his persecutors was his unwearied zeal in instructing the negroes in the knowledge of religion. He was condemned to death by a court-martial, in opposition to every principle of justice. He died in prison, was refused the privilege of Christian burial, and his friends were prohibited from erecting a stone to mark the spot where his body was laid. The whole details of this transaction present a scene of savage barbarity, scarcely to be surpassed in the history of Europe. The death of this missionary was that event which prepared for the overthrow of the slave system in the British West Indies. It called forth one of Lord Brougham's noblest speeches, and stirred the heart and conscience of the English people. The blood of martyrs is sometimes the seed of freedom as it is of the church; and the execution of John Brown, in Virginia, corresponded in its effects to the murder of this worthy missionary in the West Indies.*

In Switzerland, where formerly Protestantism had its stronghold, the demon of religious persecution has, even in the 19th century, raised its head. The council of state of the Pays de Vaud, at the instigation of the clergy, on January 15th, 1825, published a decree "prohibiting under the penalty of severe fines and imprisonments, all meetings for religious worship or instruction, other than those of the established church." And in the following May another decree was issued, which denounced "fines, imprisonment, or banishment, upon the most private kind of religious assembly, or even the admission of a single visitor to family worship." † In pursuance of these disgraceful laws several ministers and private Christians of high character for piety and learning were banished from the Canton, some for one, and some for two years, cut off from all means of subsistence, unless possessed of independent fortunes, or able to procure it by labor, and some of them perhaps left to starve and perish in foreign lands. If they returned before the expiration of their sentence, death was the penalty to be inflicted. One poor man, a schoolmaster, in the principality of Neufchatel, was condemned to ten years' banishment. He was brought out from prison, tied with cords, and compelled to kneel in the snow in the public square to hear his sentence read. His crime was that of gathering together a few fellow-Christians in his own house, to whom the Lord's Supper was there administered by a clergyman.

* Report of the Wesleyan Missionary Society, for 1824. Debates in Parliament, 1825.
† Cong. Magazine, June, 1825.

Nor has England been free from the spirit of persecution and intolerance in the 19th century. At Kenneridge, in Dorsetshire, a worthy and excellent individual belonging to the Wesleyan denomination, had attended on a green where twenty or thirty persons were accustomed to congregate on Sunday afternoons to listen to the truths he thought it important to declare. The English Church clergyman of the parish approached with a retinue of servants and commanded him to desist. The preacher took no heed to the command and proceeded to read the text. The clergyman then commanded the tithing man to seize him (which he had the power to do as a civil magistrate, for the clergymen of the Church of England very commonly fill the office of justice of the peace as well as that of a priest). He was directed to be conveyed to Wareham jail; and to every question the preacher put as to the ground of his being arrested, the reverend and worthy clergyman only replied by brandishing his walking-stick. Instances have occurred in which clergymen of this establishment have refused to bury the dead. At Chidds Ercal, in Shropshire, the child of a poor man was refused interment, and the father was obliged to carry it six miles before he could inter it in a cemetery. At Catsfield, in Sussex, a similar infamous act was committed. At the moment the bell had tolled, when the earth was about to fall upon the coffin, and when the relations standing by wanted all the consolation which religion can afford, at this moment the clergyman appeared, but advanced only to give pain to the mourners, and to agonize their hearts by saying: "Now that you have waited an hour until it suited me to come, I will not inter your child! I did not know that you were dissenters; take your child somewhere else, take it where you please, but here it shall not lie in consecrated ground." Just as if all places on the surface of the earth were not equally consecrated; or, as if a cemetery or church-yard was a better and holier place to inter a dead body than any other place a person might choose. It is certain that a cemetery or churchyard, in the common acceptation of the term, has no superior sanctity over any other spot of ground; its superiority in this respect is merely imaginary, and arises to the mind from the custom of mankind in all the ages of history being to bury their dead in certain places set apart for that purpose. In America, where many of the old superstitious notions have been given up, people very commonly, especially in New England, have each family their own burying ground on their own farm. This is as good a plan to follow as any other a person may choose with respect to the place of burial of the dead. This English family, however, to which we have just alluded, were not allowed to bury their child in the church-yard, and had to carry it eleven miles from

the abode of its parents before they consigned it to its kindred dust in what they considered consecrated ground.

At Mevagissey, in Cornwall, the rector refused to allow the corpse of a dissenter to be brought within the church, and, therefore, read the burial service in the open air. At Wellingborough, a clergyman, in opposition to a custom which had been practised for sixty years, issued orders that no bell should toll when a dissenter expired. He boldly avowed "that he would never allow the passing bell to be tolled for a marriage when the parties were dissenters." In reference to this case an appeal was made to the bishop of Peterborough, who wrote a long letter on the subject, in which he defended the conduct of this Wellingborough rector. At Newport Pagnel two persons of decent appearance, teachers of Baptist societies, were collecting subscriptions for the erection of a new place of worship. After arriving at the residence of the parish clergyman they were taken before a clerical magistrate, who, upon the evidence which the other clergyman offered, that they were rogues and vagrants, committed them to Aylesbury jail, where they were confined for three weeks, in common with the basest felons, among convicted thieves of the most abandoned character; nay, more, they were sentenced to the tread-mill, and kept at hard labor there, though during the whole time of their incarceration one of them was afflicted with spitting of blood. Their papers were seized upon, their money was taken from them, and by means of it the expense of sending them to prison was defrayed.

Since the time to which these instances refer the "Society for the Protection of Religious Liberty," has been formed, and has brought forth to public view many similar instances, some of them of a more barbarous nature. And were it not for the protection which this society affords to the victims of religious intolerance it is highly probably that vexation, persecutions, insults, fines and imprisonments on account of differences in religion would now be much more common than they are in England. Were such individuals as these to whom we have alluded permitted by the law to carry their intolerant spirit to its utmost extent, dissenters would have no security either for their lives or their property, and the fires of Smithfield might again be kindled to consume the bodies of all who refuse to conform to the dogmas of a national Church.

The main history of the Protestant Churches since the reformation, in which there is much of a persecuting spirit displayed, we have purposely left untouched in this review. There are certain subjects we have to deal with in the latter part of this book, which will require these historical facts to which we now allude to illustrate them. By the time, therefore, the reader has advanced that

far he will be able to learn much more as to the moral character of the reformed Churches as represented in history. It would have given us pleasure in our review thus far to have been able to present before the eye of the reader a more cheerful picture of the moral character of the civilized nations, and of the Christian Church; but facts are stubborn things, and there is no resisting the force of the evidence which they adduce. We intend, however, to relieve some of the dark shades of this picture by exhibiting some faint radiations of truth and benevolence, which appear amid the surrounding gloom. The dawn of a brighter day has appeared to gild our horizon. The Pope's temporal power has been taken from him, and his spiritual power and influence will continually henceforward wane, to be consumed and destroyed gradually until its end. Some of the Protestant establishments also are failing, that of the Irish Church having completely given way while one of an improved model has taken its place. Substantial knowledge is being more generally diffused among all classes of the people; the shackles of despotism are bursting asunder; the darkness of superstition is gradually dispelling; the spirit of persecution is borne down by the force of truth and of common sense; and the rights of conscience are being more generally recognized. Philanthropic institutions of various descriptions have been established; missionary societies are extending their labors to almost every land; and now the far-off continents are to some extent coming under the influence of Christian civilization.

The light of science now shines with a greater lustre than at any previous period of which history informs us. The Telescope has opened up to us distant scenes of the universe, and has enabled us to calculate the distance, character, and motions of the moon and planets. The microscope has introduced us to the invisible worlds of matter far beyond the ken of the unassisted eye. The electric Telegraph enables us to communicate momentarily with all parts of the earth. The Magnetic needle directs our course around the globe or to any point beyond the seas. The power of steam has been greatly developed to the use and convenience of mankind. The progress of invention has tended greatly to abridge human labor. Agriculture is practised more skilfully and advantageously than in former times. The arts, both useful and ornamental, are extensively cultivated. The use of the art of printing puts substantial knowledge within the reach of all, even the poorest. Literature and practical science are the order of the day in our schools and academies, and the youth of a dozen of years, whose time has been well employed in study, possesses more definite science at his command than the aged man of five centuries ago. But here the question

arises: is it possible, judging from what we know of the past history of mankind, to bring the inhabitants of this world to a general observance of the laws of benevolence, which is the true index of high moral character and civilization? To such a question, we have answered frequently before that man has it in his power to cultivate the spirit of benevolence or of malevolence, either of which he chooses; but in this connection we answer it thus: that *whatever man has accomplished man may accomplish.* Amidst the darkness, depravity and wickedness with which the earth has been generally enveloped individuals have occasionally arisen who have shone as lights in the moral world, and exhibited bright patterns of true Christian temper and of active benevolence. The founders of the Christian faith appear to have belonged to this class. The Apostle Paul had his mind imbued with a large portion of the spirit of philanthropy. He voluntarily undertook a tour of benevolence to the nations, and notwithstanding the persecutions, the reproaches, the stripes, and imprisonments which he encountered; and notwithstanding the perils in the waters, perils of robbers, perils by his own countrymen, perils in the city and perils in the wilderness to which he was subjected; and in the face of death itself, he prosecuted, with a noble heroism, his labor of love, purely for the sake of promoting the best interests of mankind. All who at the same time engaged in the same benevolent undertaking sacrificed all private interest and selfish consideration in order to bring men to a belief of the doctrine which they had themselves espoused.

In modern times many individuals have arisen and distinguished themselves and reflected honor on their race by the benevolence which they displayed. The name of John Howard is familiar to every one who is at all acquainted with the annals of philanthropy. This excellent man devoted his time, his strength, his genius, his literary acquisitions, his fortune, and finally his life, to pursuits for the benefit of humanity and to the unwearied prosecution of active benevolence. He travelled over every country of Europe and into the adjacent regions of Asia, impelled by the spirit of true Christian love in order to survey the mansions of sorrow and pain, and to devise schemes for the relief of human wretchedness wherever it existed. And in the execution of this scheme of benevolence the energies of his mind were so completely absorbed, that he never suffered himself for a moment to be diverted from his purpose even by the most attractive of those objects, namely, the pleasure of music, which formerly possessed all their most powerful influence upon his curiosity and taste. Also, Walter Venning, who has been denominated by Prince Galitzin the Second Howard, followed the course of his illus-

trious predecessor, and with the most fervent Christian zeal devoted his short but very useful life to the alleviation of human misery, and to the promotion of the best interests of thousands of wretched individuals, who were all but lost. He withdrew from the ordinary routine of what is termed genteel society in order that he might devote all the energies of his soul to benevolent occupations. He commenced his philanthropic career by co-operating in the organizations of " The Society for the Improvemement of Prison Discipline," which was founded in London in 1816; and he afterward visited the prisons in the cities of St. Petersburgh, Novgorod, Tver, Moscow, and other cities in Russia. The prisons, hospitals, workhouses, madhouses, houses of correction, and the abodes of misery of every description in St. Petersburgh were visited by him day after day; and many a prisoner bowed down with affliction and iron, was cheered, instructed, comforted, and served by his ministrations; for, it is said, that his philanthropy extended both to the bodies and souls of men. This truly benevolent person died in the city of St. Petersburgh in the year 1821, in the fortieth year of his age.

In our own day we have had a noble example of generosity and benevolence in George Peabody. An American by birth, having amassed a large fortune by the industries of trade and commerce in London, he liberally bestowed a goodly portion of it to provide shelter and comforts for the poor of that vast metropolis. In his native state he founded libraries for the instruction and enlightenment of the people, and his generous beneficence, and magnificent donations to worthy objects, ensure to him the respect of mankind in after ages. Men, who have any pecuniary legacy to bequeath to mankind, should, like George Peabody, always keep the *poor* and the *indigent* prominently in view. As the poet Homer, for the honor of whose birth-place, we are told by Cicero, several rival cities disputed, so this worthy man had the honor of his burial amicably disputed by two great nations, England and America.

Many other examples might be adduced from the history of our times, and illustrious characters now living, both men and women, to demonstrate that a noble and disinterested benevolence is a principle capable of being developed and exercised even in the present degenerate state of mankind. We find parents sometimes displaying a high degree of benevolence toward their children; and sacrificing their ease and their personal interests in order to secure their health, their happiness, and their future good. We find bosom friends as David and Jonathan, and as Damon and Pythias, rejoicing in each other's welfare, and encountering difficulties and dangers in promoting the interests of the objects of their friendship. What then

should hinder such dispositions from becoming universal? What should hinder them from being cultivated and exercised by all rational beings? Would not the universal exercise of such dispositions be highly desirable? Would it not tend to banish war and discord from the world, and promote peace on the earth and goodwill among men? Why then are such dispositions so rarely to be met with? Not because the universal exercise of them is a thing impossible, but because men, actuated by pride and selfishness, are unwilling to give full scope to the cultivation and exercise of the benevolent affections; because they have never yet persisted in their endeavor to bring these into full operation. If all the energies of the intellect, and all the treasures which have been expended in fostering malignant passions, and in promoting contentions and warfare, had been devoted to the great object of cultivating and exercising the principle of benevolence, and distributing happiness among men, the moral, yes, and natural, aspect of our globe would long ago have assumed a very different appearance from what it now presents to view.

We have examples before us not only of a few insulated individuals, but of societies where the principle of active benevolence to a greater or less degree pervades the whole mass. The people denominated Quakers have always been distinguished for their humane and peaceable dispositions, their probity and hospitality towards each other, their unostentatious liberality to indigent and suffering humanity, the modest cheerfulness of their manners, their opposition to war, and the active zeal they have displayed in promoting the moral welfare of mankind. We give the following extract from a daily paper of February 25th, 1872: "M. Drouyn de Lhuys, in his capacity as President of the French Société des Agriculteurs, has written a letter which sets forth the help given to France by the English Quakers during the war. These generous people have bestowed in the most unostentatious way aid to the extent of four millions of francs in the period named. The sum has been proved by regular accounts written by M. de Lhuys, kept with the exactitude of a commercial house. He expresses the gratitude of a Frenchman in manly and affectionate terms, not only for the help given, but for the delicate manner in which it has been bestowed. There is something fine and touching in these friends, the professed advocates of peace, thus giving out of their moderate possessions to repair the ravages of war." Thus the spirit of benevolence has to make repairs for the damage done by the outworkings of the spirit of malevolence; and it is quite as important that men should do the justice to themselves and to mankind, of restraining and eradicating the spirit of malevolence, that

delights in war and every evil work, as it is that they and all others should cultivate and exercise the spirit of benevolence, which delights in all that is good. The Quakers are also distinguished for the simplicity and purity of the creed they profess. The Moravians are likewise distinguished for their affectionate intercourse with each other, the liberality of their dispositions, the peaceableness of their temper, the purity and simplicity of their lives, and their missionary efforts for converting the heathen to the truths of the Gospel. Would that the whole race of mankind were Quakers or Moravians (if they will not be more perfect), notwithstanding their peculiarities of opinion. With all their faults society would then present a more beautiful and alluring aspect than it has yet done; peace and industry would be promoted; the fires of persecution would never be kindled; the sciences and the arts that tend to peace and order would be cultivated; philanthropy would be exercised by the nations; and the people would cultivate the spirit of benevolence toward each other, and learn war no more.

Other things which tend to illustrate further the probable permanent existence of the cosmos, or of the order of nature and man, in the main, as now existing.

After our review of the moral character of mankind in its two aspects of bad and good; and after having illustrated that man himself is the former of his own character and determines which of these it shall be; we now think it proper, for the sake of digression, variety and information, to turn the attention of our readers to other things connected with our subject *which tend to illustrate further the probable permanent existence of the cosmos or of the order of nature and man, in the main, as now existing.*

First, then, we will state as we have done before that there is no evidence except what is derived from allegorical records, susceptible only of a like literal interpretation as is given to the ancient cosmologies, which goes to prove the contrary of the probable permanency of the cosmos; and such it is well known, is no evidence.* But having before brought for-

* It is easily seen, however, that the question of the permanent existence of the cosmos as to the phenomena of forms, changes, etc., can only be of secondary importance if it be allowed that the substance of these bodies has never not existed. † If any one should undertake to say that these bodies assumed or were given their present forms and motions at some period of the past from their substance existing before in a nebular state, it would be well for such an one to say at what time that change took place, and how long their substance had existed in that supposed nebular state before it became into these globular forms, and in what state it existed before it became into the supposed nebular state. For if men allow themselves

† See page 10.

ward arguments which tended in general to illustrate this as to the phenomena of form, motion, &c., the reader will readily understand that these arguments apply to the existence of man and of all other animals, and to plants, as well as to the phenomena of the celestial spheres, to light, colors, &c., for all things are embraced in the cosmos; and will now be pleased to accompany us while we illustrate this subject in general and at length.

Solomon was a wise man and uttered the truth when he said that there is no new thing under the sun. Paul, or any other, was a wise man also, who said: If a man shall not sow neither shall he reap, and whatsoever a man soweth that shall he also reap. It is a fact known to all common observers that all plants and animals bring forth after their own kind. The farmer does not expect to reap if he do not sow or plant, nor does he expect that a blade of rye will spring from a grain of wheat that he has sown, neither of barley or of buckwheat or any other than a blade of wheat; and he is never disappointed in this expectation. Nor does he expect that any of his domestic animals will bring forth other than young of their own species, unless he has crossed the species for the purpose of producing a hybrid, as for example, a mule, the result of the crossing of the ass and horse species.

Of all the known species of plants—and there are reckoned as known, we believe, about ninety thousand species–there is not one that produces other than its own kind. Also, each of these species is distinguished by having varieties in it, and each of these varieties brings forth after its own kind. For instance the species oak, of the genus *quercus*, is distinguished by such varieties as the white oak, red oak, etc., as almost every one knows, and each of these varieties propagates after its own kind. The seed of the red oak will bring forth a red oak, that of the white oak a white oak, etc. Also, of the birch species there are several varieties, and each of these brings forth its own kind. And so it is with all the other species of plants and their varieties, unless, as some say happens, and which is not improbable to take place, that a different variety may arise within the same genus from the pollen of a plant of one variety falling upon and fertilizing the seed of a plant of another variety of the same genus, whence a new variety, a cross between these two varieties of the same genus or species might arise.

---

to launch out into the region of conjecture with respect to this subject, there is no knowing where they will terminate their speculations and theories concerning it. *

* See Herbert Spencer's "Principles of Philosophy," in which he undertakes to illustrate an infinite series of Evolutions and Dissolutions of the forms of Matter, which is as impossible to conceive as infinite space or infinite time, *i. e.*, it is to us as nothing.

Of all the known species of animals—and there are reckoned as known nearly as many as there are of plants, without reckoning the microscopic species—the general natural rule is that each species, as well as their several varieties, brings forth after their own kind. This they do permanently, unless, as we have said before, a hybrid is produced by the arbitrary government of man. Thus in the animal kingdom propagation according to species and kind is the great rule; hybridism the very rare exception. But it is an absolute fact, to which there is no known exception, that no plant or animal of any kind whatever can be produced unless the seed exists before from whence it is to spring. So then, not only are all plants and animals propagated in succession from their own kinds, but neither plants nor animals of any kind could exist had not their seed pre-existed to give them birth. And conversely the seeds could not exist had not the plants and animals existed to produce them. The seeds, therefore, of all the plants and animals in the earth must have always existed and consequently the plants and animals themselves must have existed and been propagated, were they not produced from non-existence at some past time in some way of which we have no experience.

Now propagation according to kind has taken place in all the periods of time of which we have historical records. These last go back in the case of Egypt and some other Eastern nations for a space of nearly 4000 years. This is the extent of time to which we have the written experience of mankind, (unless we receive the writings of the Hindoos and Chinese, which extend back for many thousand years before, and which are doubtless as authentic as the Egyptian records) and thus far may we profit from it. What has, then, existed and been taking place with such undeviating regularity for such a length of time, and what we see now existing and taking place, with no signs of its discontinuance, we may be allowed to suspect is permanent, always existing, always taking place, since no evidence exists to the contrary.

But geology, or the knowledge which man has obtained of the nature and construction of the earth's crust, may have something to teach us concerning the earth. This knowledge is indeed very limited, since geology has only been pursued for a short time, but it has nevertheless already done something, as did astronomy a good deal, towards the removal of erroneous and superstitious notions. The latter of these, which is a definite science,—*i. e.*, accounts well for all the celestial phenomena concerning the motions and modes of existence—does away with the old Hebrew idea of creation from every mind that has made it a study. Geology, which cannot be called a defi-

nite science, but only an accumulation of scraps and gleanings of knowledge derived from observation and examination of small parts of the earth's surface, has still so far effected as to show the falsity of the old idea of the earth and all visible things having been made to exist out of nothing in six literal days. Though the earth's centre is about four thousand miles from its surface yet geologists in their researches have not penetrated more than a mile or two* of that distance, and this only in detached spots; while the great extent of the earth's surface, and its whole interior, remain still unexplored. From this it need not be inferred that scientific men must necessarily be altogether ignorant of the approximate density and consequently weight of which the bodies must be which go to make up the earth's interior and central regions; this knowledge they claim to come to, at least approximately, from a consideration of the earth's position in space and of the force of gravity which it exerts on the moon and planets situated at different distances from it. About three-fourths of the earth's surface is covered with water. Take a small artificial globe, such as they use in schools, and bringing the south pole under your eye and then viewing it all round you will see the great disproportion of the extent of the dry land to that of the water upon the earth's surface. The bottoms of the seas, lakes, and oceans then, as well as most of the dry parts of the surface of the earth remain unexplored by geologists. Hence it is seen how little information, comparatively speaking, geology affords us concerning the earth. But it gives us some information. It proves, as well as does the common experience of mankind, that parts of the earth which are now dry and subject to cultivation were at certain periods of the past a prey to the waves. We have seen a house in one of the western counties of New York State built of such limestone as is mainly made up of water shells, some of the shells larger than our fist, and these stones are from the farm on which the house is built. A great part of this section of country, especially the valley parts, present a like geological formation, indicating that at some time it was covered with water. There are large lakes in the vicinity, and one might suppose, with respect to the particular section of country to which we allude, that at some time in the past the waters of Lake Ontario extended to a considerable distance south of its present southern boundary, but that the gradual enlargement of the St. Lawrence river by the constant flow of the water through it, by means of which a greater volume of water could pass through from the Great Lakes to the

* This means below the level surface. If we consider the heights of some mountains which are the result of upheaval from below the earth's surface, we find geologists have knowledge of the interior of the earth at certain places for twelve or fourteen miles.

Atlantic, may have drained it by degrees. There is, however, no sufficient reason to believe that at any period of the past the waters at large covered a greater extent of the earth's surface than they do now, or that more than comparatively small portions of land are at any time lost or set free by the water. People living near the sea shore have constant experience of the wearing effects of the action of the waves on the coast. This is especially the case where the coast barrier is of a soft clayey character. When it is of hard and resisting substance, as rock, the wearing effect is not so noticeable during the lapse or two or three generations of men. But the effect on some coasts by the waters heaping up sand and other material, is that land is made. This is noticeably the case around some of the great lakes of North America; and some geologists go so far as to say that all the land between the Mohawk and Hudson rivers and the Atlantic Ocean, comprising a large part of eastern New York and New England, has been thus made, and by upheaval.

Also, at the mouths of rivers there is much land made by deposits from the waters. The delta of the Mississippi is of this character, the extent of which is at least 12,300 square miles, and this is computed by Sir Charles Lyell to have been 33,500 years in the course of formation. The Ganges performs even a greater work of depositing than this. In the four rainy months, at 500 miles from its mouth, it was found to bear seawards 577 cubic feet of solid matter per second. Its annual discharge has been computed to be 6,368,077,440 cubic feet; an amount of matter equal in weight to sixty great pyramids of Egypt, although the base of that immense pile covers eleven acres, and its apex is 500 feet above the level of the plain. Yet even this does not measure the depositions which are going on in the upper part of the Bay of Bengal; for it is considered the Brahmapootra contributes as much as the Ganges does to the sedimentary accumulation. From this we may form some conception of what great extents of land there are constantly being made by the depositions of all the rivers in the world which empty into the seas and oceans; for every river bears down to the ocean an amount of matter in proportion to the volume of water it discharges, and the nature of the country which it drains.*

An admirable illustration of this subject is offered to us in the lake of Geneva. The river Rhone passes through this lake. It enters the lake at the upper end, its waters discolored by the mud; but on leaving the lake its waters are transparent blue, the mud having been deposited in the lake. As this has been going on for cen-

* See, further, Lyell's "Principles of Geology," pp. 273, 283.

turies we may expect to find some evidences of the work of the river. This is given us in the alluvial tract which stretches from the head of the lake for six or seven miles. It is a marshy plain, higher than the level of the water, and occupying what was once the bed of the lake. If this state of things continues the Rhone will eventually fill up the whole lake. The rate of the advance of the delta may be gathered from the fact that the Roman town Portus Valesia, which stood on the margin of the lake is now more than a mile and a half inland, the river having added to its delta this quantity in about eight centuries. By soundings it is found that the mud deposits reach some two miles from the river's mouth. On these alluvial tracts wild grasses are generally found growing, that is, species peculiar to the waters and to marshes, and these are often mixed with some of the cultivated grasses, the seeds and plants of which have been brought down and deposited by the waters of the river.

Examples of the loss of land by the waters, especially by the action of the waves on coasts, are of frequent occurrence on the coasts of Britain. Thus, on the coast of Yorkshire from Bridlington to Spurm, a distance of 36 miles, it is computed that the waves eroded $2\frac{1}{4}$ yards annually, so that the sea has encroached two miles within the last fifteen centuries. Many old maps of Yorkshire, indicate that villages once stood where now the waves hold undisputed sway, and ports mentioned in past history are no longer to be found. The same destruction is taking place on the coasts of Norfolk and Suffolk. The sea-port towns are being driven back by the encroaching waters. The sites they occupied in past years now form their harbors. Between Cromer and Mundesley, according to the Ordnance survey of 1838, the cliff has receded at the rate of fourteen feet a year. On the same coast, as in Yorkshire, many villages are only historical remembrances. The church-tower of Eccles is still seen rising out of the seasand, but all other remnants of the village have long since succumbed to the action of the waves, or have been covered with sand-hills which are dispersed along that coast. Dunwich, on the coast of Suffolk, offers another remarkable instance of the conquests of the sea. What is now a small village was once a large and flourishing seaport; records of the town are preserved from Doomsday book, from which we learn that the sea must have encroached on the land to the distance of several miles. Also, the Goodwin sands, which are from three to seven miles from the coast of Kent, nearly opposite to Ramsgate, tradition informs us were once the estates of the Earl Godwin. England is, however, indebted to the sea for a recent gift of large tracts of land in Lincolnshire, and Cambridgeshire, and the 300 miles called the "Humber Warp." Other countries

are far more indebted; Holland and Denmark are well-nigh wholly the products of the German ocean deposited in the most recent geological periods; and Tyre and Sidon, celebrated sea-ports of Phœnicia, mentioned in the Scriptures, are now several miles inland.

Changes corresponding to these are taking place on the coast of Italy, and to a greater or less extent on all other coasts. When any portion of land has been gained from the water, man advances on it, bringing his plants and animals with him, and the water grasses being subdued, these are propagated thereon. Or if for the course of ages there be no civilized men to occupy it, the seeds of vegetables from the old land become more or less scattered thereon, and the roots of vegetables, large and small, from the old land, become gradually expanded thereon, so that if the soil be adapted to their growth these grow up, and in the course of ages all this new land may become covered with vegetables large and small, as the old land. The reader should remember the slowness with which these natural events take place, and in a low state of civilization man scarcely perceives them. The Irish and Danes, when they contemplate their peat-bogs* of such great extent, and some of them we suppose from 100 to 150 feet deep, may well bethink themselves on the millions of years during which these vegetable deposits were being made, and should glorify their great Creator, who has arranged and superintended this whole process.

Another subject which it is proper to mention in this connection is that of earthquakes. At different periods of time portions of the earth's surface have been elevated above the general level by the action of internal forces, igneous or aqueous, or both of these combined in the production of steam, and corresponding portions have been depressed, in some cases doubtless lost, by being submerged in water. Thus the differences of level on the land surface of the earth have arisen either from the hills and mountain ranges having been pushed up by internal forces, or from the land on both sides of these having subsided. Elevation and depression have doubtless always been taking place on the earth's surface. The universal action of water is to level, and it is considered that should no other cause interfere with the degrading and filling up which is carried on by every rain drop, river and ocean, the surface of the earth, after a requisite number of ages, would become level. This however, can never be the case, for their exists a force in the earth which constantly opposes the action of water. Here, as in every domain of nature, is

* The peat-bogs are incipient coal-beds; and, conversely, the coal-beds are ancient bogs.

a finely adjusted balance, the aqueous agency on the one hand and the igneous agency on the other, the one wearing down, the other elevating ; the one filling up and making the surface even, the other disrupting and throwing existing arrangement into disorder. The igneous action is exerted in three ways; in volcanoes, in earthquakes and in the gradual upheaving and subsiding of portions of the earth's crust.

Many facts go to prove that in the earth's interior, and not far from its surface, there are vast accumulations of igneous matter. This sometimes finds vent in great quantities by means of volcanoes, of which there are known to be 225 active ones (or rather volcanoes which have been know to erupt within the last 150 years), besides a large number of inactive ones, on the earth's surface. These accumulations of fire, as we have intimated, are in detached places of the interior, and the water percolating through the fissures in the rocks finds its way into these fiery places, and thus a large amount of steam is generated, which, in its efforts to escape, sometimes finds vent by the mouths of volcanoes, and sometimes produces the disturbances of the earth's surface which are called earthquakes, sometimes causing the destruction of large cities and flourishing districts, and the elevation of certain parts of the earth's into hills and mountain ranges and the consequent depression of other corresponding parts. If the whole interior of the earth were one mass of molten matter, as some geologists are wont to suppose, then according to the laws of hydrostatics, the pressure exerted at one point by the expanding steam must be felt by the whole liquid mass ; for liquids transmit pressures equally in all directions ; hence, the same force which throws into action one volcano must also cause all the neighboring volcanoes to erupt ; and the same force which throws into disturbance one portion of the earth's surface, transmits an equal disturbing agency to every other part. This argument finds a remarkable illustration in one of the Sandwich islands. Mauna Loa is a volcano, frequently active ; there is a crater near its summit, 10,000 feet above the ocean level ; 6,000 feet upon one flank of this mountain is another crater, Kilauea. It often happens that while Loa is in action, the lava in Kilauea is molten, yet undisturbed. It appears an inevitable consequence, that if these craters both derive their lava from the same reservoir, the force which propels the molten matter to the higher crater must cause a jet of lava to be thrown from Kilauea to a similar height. That simultaneous disturbances would take place in each volcano, if their ducts led to the same reservoir, may be fairly inferred from the fact that we have numerous accounts of volcanic action occurring at the same moment at many distant points. For

example, a violent earthquake visited Chili in 1835; at the same moment the shock was felt over a wide area; the two volcanoes, Vantales, and Osorno, burst into action; and at Juan Fernandez, 720 miles distant, a submarine eruption took place. Thus, the commotion, in some deep-seated reservoir, affected a tract of country 900 miles long and 600 broad; and these examples show that some of the subterranean reservoirs are of greater extent than others; and also determines that the whole interior of the earth, reckoning at any distance from its surface, is not a mass of liquid fire.

The ordinary elevation and depression of the earth's surface takes place frequently when by the fluctuations of the temperature of the earth's crusts the rocks expand or contract, in the former case of which an elevation takes place in the surface immediately above the locality which experiences the expansion;—in the latter case, especially when the contraction or cooling down takes place rapidly fissures are made in the rocks, which admit the water to the igneous regions. When the shock takes place in the interior it is propagated on all sides from the centre of disturbance in a wave, which reaches the surface, and as it rolls wider and wider from its centre causes all the phenomena exhibited in an earthquake, gradually decreasing in its power until it becomes imperceptible. There may be earthquakes of which the igneous agency is the main cause; but it is a remarkable fact that all volcanoes, and ranges of volcanoes are in the neighborhood of seas and oceans.*

It would be much beyond the limits of our space to chronicle the destructions which the eruptions of volcanoes have brought on human beings; but it may be permitted us to mention the effects of some remarkable earthquakes. The effects of some of these were felt over vast regions of the globe. One occurred at Lisbon in Portugal, on the 1st of November, 1755, the effects of which were felt over an area four times as large as Europe. The shock was preceded by no premonitory symptoms; but, with a tremendous roar, the city reeled and fell. It seems from observations made on scientific principles that the centre of disturbance was some eighty miles from Lisbon, out at sea. The actual scene of the gaseous explosion must have been deep-seated, since its effects were felt over such a large area. The water rose suddenly twenty feet in the West Indies. The great lakes of North America felt the movement. In Scotland, Loch Lomond rose on one beach more than two feet, the water not par-

---

See Humboldt's Cosmos, vol. V. for an elaborate account of volcanoes.

* Of the 225 active volcanoes 155 or two-thirds are situated on the islands of our globe, and 70 or one-third on the continents. In the interior of the basin of the South Pacific ocean and around it are found 198 or nearly seven-eights of the whole number.

ticipating in the lurch of the land. The waves of disturbance extended to the very north of Europe. In six minutes, 60,000 people in Lisbon perished. Many had assembled on the wide expanse of the new marble quay out of the way of the falling houses, when suddenly the quay with its living throng sunk with many ships in the harbor, and not a body, nor the splinter of a wreck, was ever known to rise from the watery depths. We can only suppose that a fissure opened beneath the harbor, and, after engulfing the whole, suddenly closed in. In this earthquake a remarkable proof was offered of the fact that the earthquake wave is more readily propagated in some formations than in others. The lower part of the city which rested on blue clay was most severely shattered, while that part of the city which was built on limestone and basalt escaped. The wave movement passed along the earth's surface at the rate of twenty miles an hour; the sea wave which in such cases usually follows the land wave at a much slower pace, rolled about four miles in the same time. The sea wave is generally the cause of as much loss of life as the actual violence of the shock. This may be well understood from the fact that at Cadiz, the wave was sixty feet high. But the reason why the waters of Loch Lomond did not participate in any perceptible degree in the lurch which the land gave is that that lake is of so small an extent, and that the water wave travels so much slower than the land wave.

South America has for centuries been the scene of repeated earthquakes. A few years after Lima was built, in 1582, the city was ruined, and since then the catastrophe has been repeated some twenty times. In all the cities of that neighborhood the ecclesiastical year is full of anniversaries commemorating terrible overthrows or marvellous escapes. But none of these calamities seem comparable to that which has paralyzed that country some four years ago. On the 13th and 16th of August, 1868, two earthquake shocks passed over Peru and Ecuador, ruining every town and city, and leaving between two and three hundred thousand people dead to putrify in the tropical sun. Arica, a sea-port town, was completely covered with the wave. One who was present at the catastrophe, and who survived it, states, that upon the first shock, at a quarter past five in the afternoon, he with some others jumped upon a barge, when the great wave carried them on its crest, completely over the town, *above the spire of the church*, and landed them unharmed nearly a mile inland.

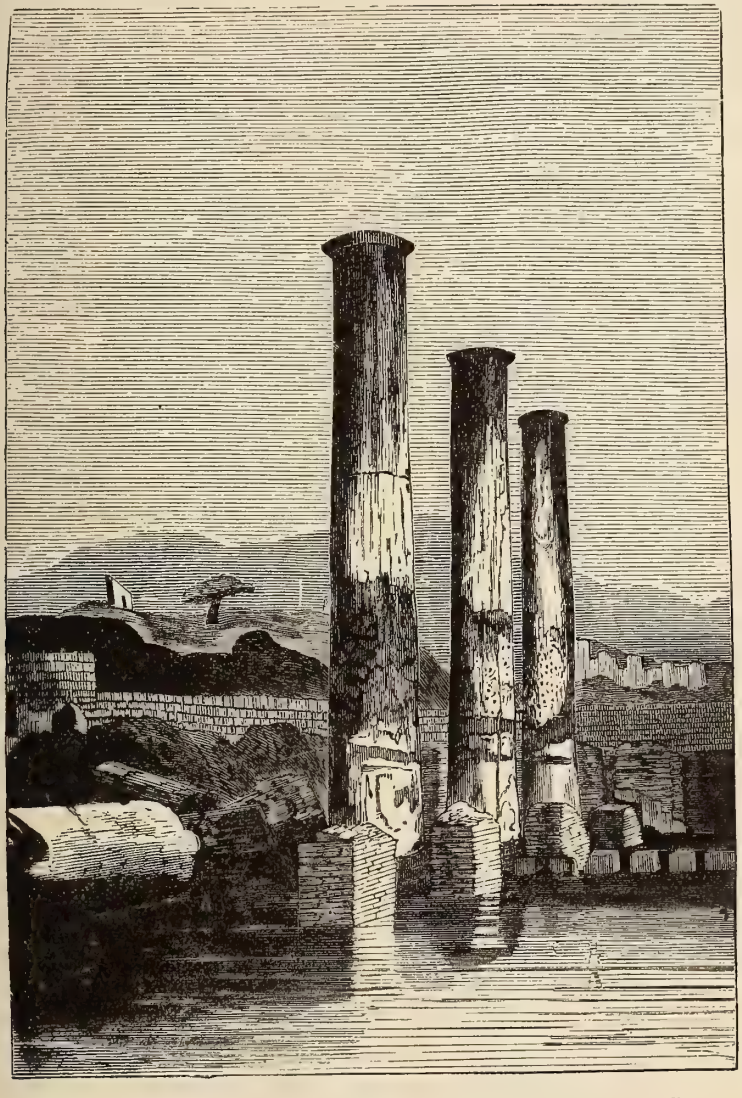
The chief geological effect of earthquakes is shown in the permanent alteration of the level of the land. In 1822, the coast of Chili was raised some two feet, while further inland the elevation

was more than double this extent. In 1855, the coast of New Zealand, for ninety miles, gave evidence of a rise of nine feet. (For many other facts illustrative of the alteration of level in all parts of the world as a consequence of internal disturbances, the reader may consult Lyell's Principles of Geology, vol. II.)

But there is found to be a gradual alteration of level taking place on the earth's surface, not attended with convulsive movements, which is more important than those local variations. Observers find it difficult to establish these facts, because there is no standard which is not itself subject to alteration. Careful investigations, however, of the coast of Sweden has shown that most of the Scandinavian peninsula is rising at the rate of four feet a century. The coast is favorable for the observation ; there are no tides in the Baltic, and the cliffs which line the coasts descend perpendicularly into the sea. Few other places present the same advantages for observation. The water level has been repeatedly marked, and the rise judged by its change. It has also been observed that the bed of the South Pacific Ocean is sinking in these ages. Some judge thus from the fact that the beds of the coral formation are found far below the depth of twenty fathoms, below which, it has been said, the coral insect could not exist from the pressure of the water being too great; just as if any man of sane mind could believe that an insect which exists under the pressure of twenty fathoms of water would be prevented from existing at five times that depth "by its pressure." There are doubtless portions of the bed of the Southern Ocean sinking to correspond with the elevations which are taking place in the Northern hemisphere, for, for every elevation there is a corresponding depression on the earth's surface.

One well known proof of the repeated oscillations of the earth's crust is that which is offered by the temple of Serapis, near Puzzuoli in the Bay of Naples. The ruins of this temple consist of three pillars of marble, hewn out of solid blocks of more than forty feet high. The history of this remarkable temple appears to be as follows: From certain inscriptions discovered in the vicinity, we learn that in the year 105 B. C. a temple dedicated to Serapis existed on the shore. In 1828, the handsome mosaic pavement was discovered five feet beneath that from which the pillars rise. The existence of this pavement indicates that the land must have sunk, and the present floor have been raised above the level of the water. In the early part of the 3rd century, the temple was repaired and beautified by the Emperor Alexander Severus. At what time it was deserted, it is not known, but, in 1749, the following facts were brought to light by excavatiug: That when the sea broke in the salt water caused a

hot spring which exists to throw down a dark calcareous deposit two feet thick. Above this a layer of volcanic tufa was found reposing, which must have been ejected by the neighboring volcano. This deposit is not regular, varying from five to nine feet in thickness. The eruption seems to have formed a barrier which kept out the



THE ANCIENT TEMPLE OF SERAPIS, NEAR PUZZUOLI, NAPLES.

waters of the sea, so that the hot spring continued to deposit its carbonate of lime, but without any marine admixture; thus about two feet more were added to the matter which embedded the bottom of the column. More volcanic tufa was now placed upon the lime

deposits either by a storm or another eruption, making a total deposit of eleven feet. All this time the land had been sinking. The sea now surrounded the pillars, which finally sank nine feet more; thus half the height was above the water, and of that which was beneath the surface, eleven feet was embedded, and nine exposed to the water; in this space the pillars were perceptibly perforated by a bivalve "Lithodomus." Thus if we include the lower pavement, the land must have sunk 25 feet since the commencement of the Christian era. When the upheaval began, it has not been observed, but it was known to be in progress in 1530, and in 1838 the pavement was again above the sea level. The downward movement has again commenced, at the rate of about one inch annually. Here then we have evidence of a structure which has undergone a subsidence and an upheaval of at least 20 feet, and still stands to attest the quietness and regularity of the movement. Although this subject of the alteration of level of the earth's surface is a difficult one to prove, from the peculiar circumstances of the case, yet, we may safely infer that this oscillation is more general than is commonly supposed; and may fairly be brought to account for the depression and upheaval necessary for bringing the aqueous rocks to form the surface of continents. For the reader may remember that the rocks which underlie a great part of the dry land, as well as most of those found in the formation of lofty mountains, furnish unmistakable evidence of their having grown beneath the water. This too will partly account for the fact of by far the greatest part of the fossilized plants and animals which have been found being of aquatic origin. In no other part of the world, we believe, has the subject of geology been more pursued than in the island of Britain, and as this island is so extremely small in proportion to the great extent of the globe, and as only small portions of it too have been geologically examined, it is the more surprising that such a great number of fossil animals and plants, and other interesting fossils, have been discovered there. We would add a list of the fossil plants and animals which have until recently been discovered in all parts of the globe to show the proportion which they bear in respect to kind to those now existing, but for the fact that these proportions are continually varying by means of the discovery of more fossils, and some new living species.

To throw a little light upon this subject, however, we may give some idea, as comparative, of the fossil animals with those now existing. The animal kingdom is subdivided so far as is know into about 120 orders. Now, how many of these orders are extinct? that is, how many of these orders of animals have lived in former ages, but have at present no living representatives? Among the mammalia

and birds there are none extinct. But when we come to reptiles out of the eight orders that are made out as belonging to the past and present, one half are extinct. The pterodactyle, icthiosaurus, and plesiosaurus give some idea of those gigantic animals. Of the *Amphibia* there is one extinct order, the Labyrinthodonts, a large salamander-like beast. No order of fishes is known to be extinct; all the fishes found in the strata examined are identified and placed in one of the existing orders. There is not known to be a single order of insects extinct. There are only two orders extinct among the *Crustacea*. There is not known to be an extinct order of the parasitic and other worms, but there are two or three extinct orders of the class Echinodermata. Out of all the orders of the *Celenterata* and *Radiata*, only one is extinct, the Rugose Corals, so that summing up all the orders of animals, not more than about ten per cent. are without representatives now existing; and the proportion of extinct orders of plants is much smaller. This fact is astonishing considering the enormous lapse of time which these animals and plants represent. From the Cambrian formation to the present, there is reckoned by some geologists to have intervened a period of not less than sixty millions of years; other geologists, however, consider that estimate as too small.

Geologists remark that the remains of man are mostly found in the alluvial deposits of rivers and lakes. These deposits contain also skeletons of land animals together with fresh water shells, intermixed with silt and vegetable drift carried down by the rivers. The reason they are found in such places rather than in others is, first, that man must have always occupied the regions of the land as a residence; and the remains of human beings found in such places are doubtless for the most part of those who have been drowned in the waters of the lakes, or in the rivers, and washed down with the debris which rivers usually carry to their mouths. We have ourself seen in an alluvial deposit in the State of New York, a fossilized man of such dimensions that, when living, he must have measured about eleven feet in height, and was made in proportion. We had the opportunity of closely examining this fossil and it appeared to have once been a noble specimen of human kind, and not to have belonged to any of the tribes now inhabiting this continent. Its antiquity, as indicated by its appearance, and the place in which it was found, must have been very great. Secondly, according to the evidence of geology and history, mankind has always been accustomed to dispose of his dead by burial and otherwise. But, besides the remains of human beings which have been discovered, many indications of their existence are brought to light in the form of warlike instruments, etc.

These are in the shape of knives, arrow and spear heads, hatchets and hammers, which indicate that the state of civilization of those using them was not high. The material and workmanship of these tools are considered by geologists to have marked the successive periods and the successive stages of civilization through which man has passed. But it is evident that in any period of the past, as at present, some tribes and nations may have been more civilized and ingenious than others, and that while one tribe used instruments of one material, and of good workmanship, another may have used instruments of another material and of better workmanship. There are found instruments of stone, of bronze (an alloy of tin and copper) and of iron; and the ages in which they are said to have been used are termed respectively the stone age, the bronze age, and the iron age. In the stone instruments there is a variety displayed indicating a less or a greater degree of ingenuity or tact in their making. Some of them are made of flint seemingly chipped into the required shape by hand. The regularity and proportion displayed in these arrow and spear heads are often remarkable. Although it may appear strange, it is said that the flint chips more easily when chipped with another flint, than if an iron tool be used; so that we need not be surprised at the clever specimens of stone handicraft, preserved for us in these deposits, and formed by men who, like the North American Indians of the past, were not acquainted with the use of iron. Some of these flint instruments appear as if they had been subjected to a process of grinding, and consequently exhibit more skilful workmanship. An ancient people who fabricated these instruments lived in the Northern part of France, and in the South of Britain. In the river gravels of Abbeville and Amiens in France, M. Boucher de Perthes found in 1847 many specimens of their handiwork. These beds of gravel vary in their depth to the present bottom of the valley from 20 to 200 feet. This depth indicates the amount of scooping work the river has done since these ancient people occupied its banks. These tools are usually bleached by long exposure to the air, or they are stained with the same yellow tinge which pervades the gravel bank, and sometimes crystalline incrustations of carbonate of lime appear upon their surface. Their edges are blunted either by wear or by the rolling action of the water, and they are usually found at depths of from fifteen to twenty feet from the surface. The fact that the Somme river has worn away more than 200 feet of valley since the people of this stone age inhabited its banks may impress us with some notion of the time which has elapsed since that very remote period; yet the position in which similar instruments are found in the South of England, carries our

minds still further back into the past. On the tops of the hills in South Hampshire, and in the North of the Isle of Wight, masses of gravel are found. These detached beds are believed to be the remnants of a great deposit of drift resting upon the Eocene Tertiary Strata. In this gravel are blocks of sandstone, some twenty feet in circumference, and to account for their presence at some distance from their native beds geologists have recourse to the agency of the glaciers. It is in this gravel that numerous specimens of stone tools, precisely similar to those of the Somme valley, have been found. If the theory of the glacier agency with respect to these rocks be true (and it does not seem altogether improbable when we consider that glaciers of great extent exist in the Alpine districts in the centre of Europe at present), then, when these ancient people inhabited Britain it was amid the ice and snow of the Arctic regions, or, at least, in the proximity of glaciers and ice fields. And since the time of their existence the Southampton river, the Avon, and the Stour have begun their course and gradually worn for themselves their present valleys. And probably the Isle of Wight was then part of the mainland; whether or not the Strait of Dover then existed may be guessed or known. But not only have they passed away, but many of the animals then existing are now extinct. The bones of the mammoth, the woolly-haired rhinoceros, the reindeer and the Norwegian lemming, all are associated with the flint instruments. These animals have all an Arctic relation, and the two first have been known alive in historical times. The first of these is simply a large kind of elephant, and the lemming is of the rat species. In the valley of the Somme the hippopotamus and the musk-ox are also found, indicating a somewhat more genial climate. The reason why the remains of men are not in general found associated with these instruments, is, as will appear more clearly from information hereafter to be given, that mankind has always been accustomed to bury their dead in detached places, or to burn them.

For a long time geologists refused to entertain the idea that mankind was co-existing with the mammoth; but now all doubt upon this subject too has been removed, for even in the scanty researches thus far more than 3000 flint instruments belonging to the ancient stone age have been discovered in Europe. Throughout the whole of Scandinavia (Sweden and Norway), although quantities of flint instruments are found, none of them are of the rude stone type found in the South of England, and in France; but all are ground and better shaped. This may indicate that they were of a later age than the stone weapons, or of the same or even an earlier age, and made and used by a more ingenious and civilized race of men. The thought

will probably strike one, was not Scandinavia in these early times covered with ice, and how could it then be inhabited? An equal and an equally forcible consideration is this—that Denmark was certainly inhabited by the men of the stone period; and if this being in such close proximity to the Scandinavian Peninsula, was inhabited why should not the latter have been? Doubtless the Scandinavian geologists have given considerable attention to this subject and understand it.

Along the coasts of the Danish islands are mounds from three to ten feet high, and some of them as many as 1000 feet long. These mounds are termed *kitchen middens*, being found to contain some shells of mollusks, etc., upon which the people lived. Being in close proximity to their dwellings it is natural they should contain many remnants of their mode of life; burnt bones of the animals they cooked, their stone knives, spears, etc. Sometimes bone and horn instruments are found in great numbers. The animals with which they were associated are still living in Europe, excepting the beaver. The dog alone, however, seems to have been domesticated by them. These facts, and fragments of rude pottery that are found, go to prove them to have been partially civilized.

These ancient people have reminiscences of their existence preserved to us in peat-bogs, and in Denmark successive stages of civilization are observed. In the lower beds of peat, stone weapons occur side by side with the roots of the Scottish pine, a tree which has never been known in Denmark in historical times. Higher up in the same bronze instruments are found; but here the pine has become extinct and the oak takes its place. Still nearer the surface iron instruments are found; but during the bronze period the oak growth waxed and waned, the next the beech tree which now flourishes in Denmark occupied the country. Let the long periods which it must take for successive generations of forest trees to wear themselves out tell the years which measure these ages of stone, and bronze, and iron.

An interesting and singular repository of these ancient relics has lately been discovered in Switzerland. It seems that it was the custom of the ancient inhabitants of the Swiss valleys to construct their villages on piles, driven into the bottom of the lakes, where the water was not more than fifteen feet deep. No fewer than one hundred and fifty of these lake villages, have been already discovered. Being surrounded with water the inhabitants were secure from the attacks of wild beasts, and in some measure from their human enemies. By dredging in the ooze great numbers of articles have been found. Some villages are characterized as of the stone age, others of the bronze, and others again give evidence of having been inhabited by

people who used both the stone and bronze instruments. Among other things taken up from the villages characterized as of the stone age are charred corn, and bread. This proves that the people of that very ancient period cultivated corn. No corn has been discovered in the villages where the bronze instruments have been found, but the vessels occasionally bear the marks of the potter's wheel. Numerous animals were domesticated, and gold, amber, and glass were used for ornaments. From the size of the sword-handles and the bracelets it is concluded that the people denominated as of the stone age were smaller than the present inhabitants of Northern Europe.

With respect to the disposition made of the dead the evidence is as follows: During the age of the stone weapons the mode of burial seems to have been in rude coffins of undressed stone. The skull is remarkably round and small, and this type is now most nearly approached in the Laplander. It is suggested that he may be the descendant of the men of the stone age, his ancestors having followed the ice northward. During the age of the bronze weapons the fashion of burial changed; or, perhaps, we may say with equal propriety that the men characterized as of the bronze weapons disposed of their dead differently. No human remains understood to have belonged to that period have been found; they *burned their dead.* When the age of iron came they again resorted to sepulchral burial, and now the skull appears larger and longer. The floors of caves have proved the richest storehouses of human remains; but owing to the fact that the cave may have been used as a burial place in comparatively recent times, it does not necessarily follow that human remains lying side by side with the bones of extinct animals belonged to human beings that lived contemporaneously with these animals. Out of the numerous fragments of skeletons which from time to time have been brought forth from such places Professor Duncan concludes that the lower jaw found in the cave of La Nautelle, the skull from the Engis cave, and the jaw of the Grotto des Fées are "the only examples of human bones which can bear criticism, and which can be referred to the mammoth age."

As we may have before intimated, the stone, bronze and iron instruments may have been used by the same nations and tribes for long successive ages, and may indicate the advances they made in civilization and art, or may have been used contemporaneously by different tribes and nations of different or the same degrees of civilization and art. The finding of the stone, bronze, and iron in successive strata, as in Denmark or in any other place where a sufficiently extensive search had been made, might appear to substantiate the first supposition; but the finding of these different kinds of in-

struments in neighboring villages or in the same village, would indicate that the second supposition might be equally true. The Augustan age in Europe, characterized by a certain kind of arms and arts, may have been characterized by very different kinds of arms and arts in China, which it undoubtedly was. Also, the ages of the bow and arrow in Europe and Asia were different from the modern age of artillery; and the tribes of Indians or other tribes who use the bow and arrow contemporaneously with the use of artillery by their white neighbors, may differ somewhat in point of civilization and art from the whites; or there may be tribes on the earth who might be considered as equally advanced in many respects in regard to civilization with the whites who still use bows and arrows. And even neighboring as well as distant tribes in prehistoric times may have differed in like manner, doubtless did. Each nation had then its own language, and differed from its neighbor in arts and characteristics even more than the nations differ now. We are to remember that the facts here adduced as to the discovery of human remains or of instruments indicating the existence of human beings in those very ancient times refer to Europe alone, and only to a small portion of that. But we have ocular evidence in the numerous tumuli of the Western States of the existence of men on the American continent in past ages, men who as we have been informed by a man of sound judgment who had inspected some of the remains, and handled some of the limbs, averaged 10 to 12 feet high (some of them much higher) and were made in proportion. The fact evidences as strong as anything can that different races of men have existed on this continent in past ages and have passed away in succession; men, some of whom were in point of size to the men of the present day, white, black, or red, as the huge mammoth or mastodon would be to the elephant. The whole continent of America has been peopled in some of the past ages by these gigantic races. We have mentioned in another place the huge fossil man we inspected in Western New York, which was casually happened upon by a man digging a trench on his own farm. And we have been since told by a clergyman, who resides on the eastern side of Lake Erie, that he had reason to believe that such huge fossils are not uncommon in the district in which he lives; for that, when in Elgin county, in Canada, he handled a skull of one of these ancient giants, whose remains had been casually found in the neighborhood, and that when through curiosity to find how his head compared with it in size he inserted his head into the cavity of the mammoth skull, there was still more than enough of room left on each side for him to insert his two hands between the skull and his ears.

The whole continent of America presents innumerable evidences of an extinct civilization. These are of various kinds, including mounds, tumuli, fortifications of large proportions, gardens, wells, artificial meadows, ruins of towns and cities once wealthy and populous, which all, with many other monuments are to be found scattered throughout the continent, especially from the 48th or 50th parallel on the north to about the same latitude on the South of the Equator. The valleys of the Mississippi and the Ohio abound in ancient mounds, tumuli, extensive fortifications, and traces of wells, salt mines, and artificial meadows which speak unmistakeably of a long period of time during which a numerous and powerful people of settled agricultural habits had made such considerable progress in civilization as to require large temples for their religious worship and extensive fortifications to protect them from their enemies. On the banks of the Blue river, the Black river and the St. Charles, near the river Gila, and upon an alluvial soil which reposes upon basaltic rocks, the remains of ancient colonies are very numerous. Rows and piles of stones show the plan of houses, though nearly covered up by the accumulated soil of ages. Here is seen a ruined circular stone wall about 250 yards in circumference with an entrance on the eastern side, and containing in its centre the ruins of a dwelling in which no traces of wood exist; three quarters of a mile distant the soil is strewn with enormous remnants of spacious edifices which contained rooms fifteen feet square. In most of these, fragments of painted pottery have been found and traces of decaying cedar wood. These houses are surrounded by a rampart 300 yards in length. One writer observes in speaking of this locality: "Subterranean fires appear to have ruined all this country and converted it into a barren waste; the country may also have been deserted in consequence of volcanic convulsions spreading death and misery among the inhabitants." Judging from the walls, houses, and remains of pottery met at every step, all this region of country seems to have been very populous in past ages. In the Apache territory near the Rio Grande is a copper mine which shows distinct traces of ancient working. A little to the East of this an ancient fort of a square shape is erected with a tower at each corner. The walls are four feet thick and in a state of some preservation. The banks of the Rio Verde abound in ruins of stone dwellings and fortifications which appear to have belonged to a more civilized people than the Aztecs. They are found in the most fertile valleys, where traces of former cultivation and of small canals for artificial irrigation are yet visible. The firmly built walls of these dwellings are twenty and thirty yards long to thirty or forty-five feet high, and from four feet

thick at the base gradually taper to the top. The houses were four storied, with small openings for doors, windows, and loopholes for defence against outside attacks. Excavations around these majestic ruins have yielded abundant fragments of beautiful pottery, black, yellow, red, striped and scalloped and ornamented with brilliantly colored paintings. Of the ruins in New Mexico the most modern are the *pueblos* or stone dwellings; they comprised usually a main portion and two receding wings at right angles to the main part, from the extremities of which extended a circular wall enclosing a large yard or court. They had the appearance of an immense barracks, being of four stories high, each receding from the preceding one like a series of terraces rising one above another. The outside wall had no openings in the first or lower stories, and each story was reached from the court or yard by ladders which could be drawn up after the inmates, thus giving no opportunity for the enemy to enter. The minor details of these structures indicate much ingenuity and art. Some of them appear in the distance like splendid mosaic work, being constructed of stones of various colors. They are built of small flat slabs, in some cases of fine granite sandstone, a material never used in any of the modern monuments of Mexico; and the walls show no trace of cement, the intervals being neatly filled up with small colored pebbles incrusted in mortar made without lime. Remains of ancient towns are extremely numerous in the country of the Zunis, the Navagos, and Jemez. All these towns are so ancient that no Indian tradition makes any mention of them. Humboldt, speaking of these remains of the unknown past, in which may be included the ruins of populous cities possessed of much grandeur, the amazing signs of mechanical and architectural science which are manifest in the construction of the palaces of Tezcotzinco, the temple of Xochicalco, and the colossal stone calendar of Mexico, says: "Certain it is that they are the work of a great people, of an intelligent nation, whose civilization was far superior to that of the actual tribes." These ancients seem to have possessed a knowledge of astronomy, as all their structures had either four entrances or four corners or towers answering to the four cardinal points. Among the basses Grandes are met numerous ruins, among which is a tumulus surrounded by an earthen wall 100 yards in circumference. A little from this is a large round terrace 100 yards by 70, supporting a pyramid 30 feet in height by 25 yards at its summit, commanding a view of a plain extending north, east and west, on the left bank of the Gila. The Pimas Indians have a legend concerning these ruins which runs thus: They pretend that these edifices were constructed by the son of the most beautiful woman that ever existed and who formerly

lived in the neighboring mountains. Her extreme beauty caused her to be beloved by a multitude of suitors; but she refused to marry; when they visited her they paid her tribute, and by means of this resource she provided for the people during times of famine without provisions ever failing. At length one day she fell asleep, and from a dew-drop descending and falling upon her bosom she conceived and gave birth to a son who built these houses and many others to the north and south-west. Among all these ruins are found beads and painted pottery, and perforated shells which antiquarians believe were used as coins or ornaments.

The valleys of the Ohio and Mississippi are rich in monuments of various kinds, dating from a period long anterior to the historical era. In Ohio alone, the number of ancient mounds, wells, etc., has been estimated at ten thousand. The American mounds have been divided by antiquarians, as follows: altars, tombs, temples, and tumuli of no determinate character. Out of one hundred examined, sixty had served as temples, twenty as tombs, and the rest were places of observation, or mounds, the uses of which could not be determined. Their plans and construction differ according to the situation. In the vicinity of the great lakes, and in the States of Wisconsin, Iowa, Michigan, and the western territories, they are made of earth, of conical form or in the shape of animals, birds and reptiles, or even in that of man; appearing like immense *Bassi Relievi* carved out on the soil by the hands of giants. In the interior of these monuments relics of art have been discovered belonging to a very ancient period, and consisting of personal ornaments, domestic utensils, and articles connected with religious worship, made of different metals and of *Pietra dura*, also polished stone and copper implements.

In the Ohio valley these earthworks are larger, more numerous, and of a more regular construction, in many instances surrounded by earthworks or strong walls; and give the best indication, from their number and style, of the greatness, or at least the multitude and superiority of the populations by which they were constructed. Advancing southward these antiquities are remarkable for the great regularity of their structure and their extraordinary size, and in these southern parts only have traces of brickwork been detected in their construction. In Florida and Texas these mounds are composed of several stories, somewhat resembling a Mexican *Teocallis* in their pyramidal form, dimensions, lofty passages, spacious terraces, and long avenues; they are often surrounded by smaller ones placed at regular intervals, some with paths winding round them from the

base to the summit; others have gigantic steps, like slips in European fortifications.

Enclosures are rare in Florida, but those of a military character have been discovered in the Carolinas. Of the courts or amphitheatres that existed in the far South, the purpose seems to have been that of places for public amusement, as in the amphitheatres at Rome. The tetragonal terraces are apparently foundations for elevated fortifications, while the pyramidal hillocks are supposed to have served as observatories commanding a view of a wide extent of country. In Florida, frequent vestiges of extensive roads are met with, some running in a straight line for sixty to seventy-five miles. These highways were elevated above the surrounding plains, and appear to have led to the great centres of population, traces of which still exist. After traversing ruins of towns and villages they terminated at the foot of one of those artificial teocalli, or high dwellings of the chiefs. Few American curiosities are more striking to the imagination than these great roads, and the magnificent scale on which they were constructed brings to the mind the great roads made by the Roman government through the provinces of the empire. The elevated structures, or mounds of Florida, were usually square-shaped, sloping on one side to the road, or reached by a series of wide steps leading to the summit of the monument. The Indian population, whom Columbus found here, had no knowledge of the origin or uses of these structures, which were covered equally with the surrounding country by forests of gigantic growth. We might mention also the immense gardens, of unknown origin, found scattered over various parts of the American continent, whose size and state of preservation has produced, in the minds of observers, much astonishment. This perfect preservation is thought to be owing to the thick coats of prairie grass, which is so dense and abundant as to form a compact vegetable coating on the surface of the soil. This enables all their sinuosities to be easily traced, and has prevented their surface being overgrown with forest, as obtains in other ruins. They are square, or semi-circular, and are divided in parallel lines so as to form a series of ridges or beds, two or three yards in width, and are separated from each other by a number of very narrow paths. One of them is described by Domeneck, as above eight miles in extent. No light has been thrown upon the nature of the produce of these extensive fields laid out with so much regularity. The finest and best preserved have been found in Indiana, Michigan, the Western territories and Texas. Besides these gardens, artificial meadows, many of which were found situated on the borders of wood land or in the midst of forests, were also cultivated by the agricultural population which

inhabited the western world previous to the tribes now existing. From the nature of the country, the configuration of the surface, as well as the agricultural implements of stone and brass found in those meadows, it is believed that in remote times these regions were covered with trees which must have been burned or torn up to make room for pasturage, etc., in the vicinity of human habitations. There are many traces which make it appear probable that the ancient inhabitants of the country worked the salt water springs in order to procure salt. These traces appear in Illinois, where, in a salt mine, there existed an excavation one hundred and thirty-five yards in circumference, in the middle of which a great pit had been dug at some unknown period. A conduit also existed by which it is supposed the water was drained off. In Ohio the salt mines give evidence of having been worked, the ancient remains of vases used in the evaporation of water having been found near the mines. In the saltpetre cave of Missouri hammers and axes similar to those found in the tumuli have been discovered. In the Lake Superior region are copper mines which bear unmistakeable traces of ancient mining. It appears that the ancients made use of tools of tempered copper, specimens of which have been found in the mines, as also evidences of the use of fire. The marks of such tools are traceable on the native copper.

Fortifications of a singularly strategical character and of immense proportions, have been found existing in the vicinity of the Ohio and Mississippi rivers. With reference to these it has been said that, "of all the great works left by the ancient American nations, none are more extraordinary or more worthy of study than those colossal fortifications and vast entrenched camps protecting and surrounding spaces so very considerable that of necessity, they must have been the work of a large population." The epoch at which these were constructed is, of course, quite unknown, but it is evident that they must have been coeval with the most ancient mounds or tumuli, since they are often placed within, or in the immediate neighborhood of, the fortifications, and in many cases form part of the general plan of defence.

These fortifications are found to consist sometimes of earthworks thrown up in the form of an extensive entrenched camp, or in the stone walls which have been thrown across peninsulas formed by the conflux of two rivers, and around the declivities of elevated terraces; while in all cases it is observable that a careful choice had been made of the most suitable position, of which every advantage has been taken to construct defensive fortifications on a surprisingly gigantic scale. On the delta formed between the Raccoon and Newark rivers

in the county of Licking, Ohio, there exists an elevated table-land about 35 feet in height upon which are remains of military constructions of great extent. On the west side of the platform stood an octagonal fort enclosing an area of about forty acres, having stone walls of solid masonry about nine feet in height, and the same in width at the base, each protected by a tumulus placed in the interior in front of the entrance. Two parallel walls lead to another circular fort at the southwest of the first, covering a space of 22 acres ; further south is an elevated hillock or observatory which commands a view of the whole position, beneath which a secret passage leads to the opposite side of the river. A third fort of a circular form stands more to the right, enclosing about 62 acres ; there was an interior ditch in this, out of which earth had been taken to assist in the formation of a wall, which ranged from 25 to 30 feet high. Two other parallel walls run towards the north, gradually converging to another fort of quadrangular form, enclosing an extent of about twenty acres. These four different forts are connected by rather low walls, and in the centre of the enclosed area is a shallow pond covering 150 to 200 acres, supposed to be artificial, and to have been required to afford water to the people and animals inhabiting the place ; towers of observation placed at each of the salient points complete the works at this point. At Marietta, near the mouth of the Muskingum, some extraordinary ruins exist, among which are two square forts, the largest covering forty acres; these have earth walls from three to six feet high, and widest at the base; sixteen openings exist at regular intervals ; at one side is a covered way formed by walls which are said to be 21 feet high, and 120 feet in length leading down to the river by a gentle slope. On the valley of the Paint Creek, near Chilicothe, is to be seen one of the most interesting of these fortifications; it is situated on a hill 300 feet high, and 130 acres in extent. The ascent is very steep and is accessible only on one side; a stone wall extends round this plateau of elevated ground. It is said that no engineer could have selected a more strategical position. On the little Miami and its tributaries, and in Ohio, several of these strongholds are said to have existed, in which the walls were disposed in a parallel manner. But enough has been said to show that the strongholds erected by these ancients were not of the meaner sort,— the earthworks seemed to be possessed of the greatest durability : for they have been protected by a growth of forest or thick grass, while the stone structures have tumbled in most cases to a mass of ruins only intelligible to the penetrating glance of the antiquarian. The Indians know nothing about the origin of these structures, nor about the people by whom they were erected : but they hold them

in traditional veneration. The tumuli are massive and pyramidal in form and some contain a vault within which are laid the remains of the dead; these vaults are usually built of stones placed one above another, without any cement, sometimes of wood, or of both combined. The mounds are of various dimensions, from three to ninety feet in height, and from 100 to 700 feet in circumference at the base. In the top there exist altars of baked clay or stone in the shape of large basins, varying from 19 inches to 17 yards in length; but the average is from 2 to 3 yards. A number of these were examined by Messrs. Squire and Davis and were usually found to contain ashes and remains of calcined human bones, with sometimes a few ornaments; this leads to the belief that the ancient Americans sometimes burned their dead. In the larger burial mounds the vaulted chamber usually contains a raised pedestal or altar, upon which is laid the human remains. These skeletons are ordinarily covered with sheets of mica, and carefully placed around them are found ornaments and utensils of various descriptions. One was discovered in Utah in which a polished silver breast-plate lay upon the skeleton; at each side of his head lay what appeared to have been two tapers extending upwards, while between the feet was found an earthen vessel of remote antiquity. Some of the vaults have a stone pavement floor while others are vaulted and floored with what appears to have been a species of brick or fire clay. In the Southern States, funeral urns have often been found within tumuli of this kind; also beds of charcoal, from which it is inferred that fire was used in their funeral rites. In these monuments also have been discovered ornaments of silver, brass, stone or bone, and ornamental beads made of shells; also pieces of silex, quartz, garnet, and obsidian, points of arrows, copper tools, marine shells, sculptures of human heads or of different animals, fragments of beautiful pottery, ornamented with brilliantly colored paintings of butterflies, quadrupeds and other things, indicating a knowledge of art.

Very valuable discoveries of this kind have been made in New Granada, where arms, idols, and medals were found enclosed in tombs of people whose successors have disappeared for many centuries, and whose enormous wealth is reported by tradition. The archæologists of Panama declare these works of art to belong to very remote antiquity, and consider them to possess characteristics of both Chinese and Egyptian art.

Domenech describes enclosures made of earth of about 300 yards in circumference and having but one entrance, situated on low flats of circular, elliptical, or quadrangular form, but in all cases of regular shape. Aside from these there are a multitude of small circles about

fifty yards in circumference, near which are grouped mounds that appear to have served as altars. The large circles extend over a surface of fifty acres, and are connected with rectangular enclosures by means of broad avenues. These walls are all made of earth. The religious feelings which actuated the authors of these immense structures, it is thought, can alone account for their erection. The Abbé Domenech, writes of them in these words: "If religion were out of the question it would be difficult to account for the object of works like those of Newark, which extend with their avenues over a space of more than four square miles, and to which only the great temples of Abury and Stonehenge in England, and Cornac in Britanny can be compared."

As to the probable age of these ruins we may observe that in the valleys of the Mississippi and Ohio, where the tumuli and ancient fortifications are found in the greatest numbers, trees of enormous dimensions have grown upon them, the age of which form the surest data on which to form a judgment as to the period when these different structures were abandoned. In 1787, Dr. Cutler found trees of immense size in the ruins of Marietta. Many of those cut down were hollow, but one in which decay had only just commenced showed 463 concentric rings: and as naturalists have conceded a year's growth to each ring this tree must have existed more than that number of years. On the ground lay huge decayed trunks measuring six yards in circumference; he then concludes that as these were not the first trees to grow on these ruins, they must have been abandoned nine hundred or a thousand years ago. Sir Charles Lyell relates that on the the same spot he, in company with Dr. Hildreth, in 1842, saw a tree, which, when sawn asunder, numbered eight hundred rings of annual growth. Gen. Harrison, President of the United States, in 1841, who was well skilled in wood-craft, remarked in a memoir upon this subject: "Several generations of trees must have lived and died before the mounds could have been overspread with that variety of species which they supported when the white man first beheld them, for the number and kind of trees were precisely the same as those which distinguished the surrounding forest." "We may be sure," he observes, "that no trees were allowed to grow so long as the earthen works were in use, and when they were forsaken, the ground, like all newly cleared land in Ohio, would for a time be monopolized by one or two species of trees, as the white poplar, the hickory, the yellow locust, and the black and white walnut. When these had died out, one after another, they would, in many cases, be succeeded (by virtue of the law which makes rotation in crops profitable in agriculture) by other kinds, till at last, after a great number of centuries, several

thousand years perhaps, that remarkable diversity of species characteristic of North America, and far exceeding what is seen in European forests, would be established." Taking this in connection with the opinion of a celebrated naturalist, who assumes that the oak is five hundred years in growing, remains five hundred years in *statu quo*, and is another five hundred years in decaying, we get some idea of the great antiquity of the American tumuli on which enormous oaks are found growing amid the remains of other oaks reduced to dust by extreme old age.

Hieroglyphic inscriptions have also been discovered from time to time in the States of Georgia, Kentucky, Minnesota, Ohio, Connecticut and Rhode Island, while some, remarkably well-preserved, have been found in the islands of Lake Erie. The red pipe-stone quarries of the meadow hillocks in the Western States conceal numbers, while others are met with in New Mexico. The most important and significant of these is that of Dighton rock. This rock is situated at the East of the mouth of the Taunton river in Manchuctka; the width of the rock is about forty-four feet, and the height in use about five feet; the surface is polished, either by water or by the hand of man. It was for a long time covered with moss, *detritus* and dirt, so that the inscription was not noticed until the middle of the last century, when it became a subject of much interest and scientific discussion. The characters entering into the composition of this inscription are decided to be hieroglyphic, kyriologic, and symbolical, and the strokes, roughly sculptured, appear to have been cut in the stone with a cylindrical instrument, the depth of the incision being about two lines. It has been attributed by M. Mathieu, a French writer, to the Atlantides, about the year of the world 1902; and Messrs. Yates and Moulton, in their History of New York, say it is of Phœnician origin. An inscription of much interest was also discovered in Grace Creek tumuli in Western Virginia. It was found buried with a skeleton in a mound containing two vaults; it is composed of twenty-two characters in three lines with a cross and a mask engraved on a dark, hard stone of an elliptic shape, about two and a half inches long, two inches wide, and about five lines thick.

Learned men who have examined this inscription most carefully, neither agree as to its origin nor as to the nature of its characters, of which four, it was thought, had a resemblance to the Etruscan signs, four to the Thugga (African), five to the ancient Runic in Scandinavia, six to the Touarick, seven to the old characters found in Ireland, ten to the Phœnician, and fifteen to the Celtiberian, several resembling more than one kind of character. The divided state of opinion

as to the relic only proves the uncertainty of its meaning, and causes one writer to ask the questions concerning it: Is it a sign, a motto, an ornament, or an historical remembrance?

There is another circumstance which is worthy of mention and is thought to be of great historical significance among the evidences of past civilization which are found to exist on this continent, namely, the marks of "fountain worship." The ancient peoples of Mexico and Peru have left traces, not only of the Phallic worship and its accompaniments, but also of that ancient material worship that believed the spiritual essences of things to be manifested in the expressions of life around them. Deity was perceived everywhere, and in everything, and thus they worshipped the sun, the moon (which they supposed controlled the weather), the stars, the earth (which they call their mother, the sun being their father), the rivers and fountains. The Zunis, above all, not using artificial means to irrigate their fields, and whose crops, therefore, depended entirely upon the rain that fell, believe to this day if they neglect to make their annual offerings to the spirit of the fountains their harvests will be destroyed by drought. Thus in Mexico, Ireland, Scotland, as in ancient Carthage, Persia, Chaldæa, India, China, and Arabia, holy wells are held in great reverence and veneration by the inhabitants, who repair to them every year to make their offerings to the spirit of the springs. In the country of the Zuni one of these is still found; it is seven or eight yards in circumference, and surrounded by a low, circular wall. Once a year the water is withdrawn, when offerings of varnished pottery are placed upon the wall, there to remain until they fall by accident or time; hence there are to be seen here specimens of pottery of great antiquity. A tradition obtains among them that any one attempting to steal one of these offerings would be punished by instantaneous destruction. The worship of wells was practised in the East from times of the greatest antiquity, not only by the worshippers of Baal, by the Scythians, and their descendants, but also by the Chinese, Hindoos, Moors, Persians, Arabians, Egyptians, Jews, and Celts of Ireland and Scotland, where these objects of the profound veneration of the Celtic people were usually situated in the most picturesque spots, on the slopes of hills and venerable oaks, amidst rocks covered with heaths, in retreats difficult of access, and, above all, in the vicinity of an ancient oak or upright unhewn stone, and in dark and mysterious solitudes, where the breezes and the brooks murmur incessantly, and where the voice of man finds a faithful echo always ready to make nature resound with the songs and praises inspired by the piety of the people. In England, it

is said, the Druids practised this worship, and under the reign of Canute and Edgar edicts were promulgated against those who venerated these sacred wells; while in the Scandinavian manuscript, it is related that in the tenth century, a schism arose among the Americans, some of whom were accused of despising the sacred well of Vagarscriebat. That a worship so ancient and so general in the Eastern Hemisphere as that of the fountains and wells should have been found to exist in the Western Hemisphere, may appear to be a mark of no small significance. In those times, there were people who believed that spirits presided over these fountains and rivers; that these spirits were invisible, and hovered around them, and received with pleasure the offerings made to them by mankind either as thanksgiving or propitiation.

Certain idols, shells, pottery and ancient mummies, have been found in the mounds and caves of Tennessee, which are thought by some writers to point to an Asiatic origin. In reference to these remains, the Abbé Domenech writes: "A knowledge of conchology is by no means unimportant in the study of the origin of the first inhabitants of North America, since it appears that they employed large marine shells, for their personal use, and for their sacrifices." The tumuli found in the valleys of the great rivers and the ruins of ancient fortifications contain a great number of these shells, which have formed the subject of long discussions among ethnographers, who are not agreed as to the locality of their origin. The most curious, perhaps, of the idols which have been found in these ruins have been found in the State of Tennessee. One of these was found enclosed in a small shell of the species *Cassis Flammea* which is of tropical origin, the others are without shells and either seated on their heels or kneeling, the hands being placed upon the thighs or abdomen. They are naked, and represent different sexes; the largest are about four inches in length; they are cut in stone common to the country. One of the professors of the University of Tennessee expressed the opinion that all these idols were representations of the ancient Phallic worship and were similar to those exposed in the temples of Eleusis.

The existence of American mummies, swathed in the veritable manner of the ancient Egyptian mummies, excited considerable surprise and comment at the time of their discovery. They happened to be discovered only in the neighborhood of large rivers, where vessels could easily approach; they evidently belong to a race anterior to the red Indian; and from their discovery, some writers agree that the ancient inhabitants of the continent were of Egyptian origin, or at least came from the shores of the Mediterranean, while

Dr. Mitchell endeavored to prove that the ancient inhabitants of America were of Malay origin, and resembled the natives of the islands of the Polynesia and Australasia. He founded this opinion on the resemblance of the cloth in which these mummies were enveloped to that brought from the Sandwich and Fiji Islands, which is similarly made of fine cord doubled and twisted by hand; and again on the fact that feather mantles are applied to a similar use by the the islanders of the Southern Ocean. It may, however, appear strange to men of sober reflection that our modern ethnographers are not content to allow the ancient inhabitants of this continent to have had an American origin without wearying themselves with investigating an origin for them on other parts of the earth's surface.

The mummies were found in great numbers in the Mammoth Cave near Louisville in Kentucky. This cave contains a large quantity of nitre, and the preservation of these mummies is attributed to its presence. Domenech describes one of these, that was found nine feet below the surface of the soil; it was placed between two large stones and covered by a flat slab; the knees were drawn up to the chest, the arms crossed, and the hands folded the one over the other at the height of the chin. The hands, nails, ears, hair, teeth, and all the features were in a state of perfect preservation. The skin resembled leather of a yellowish color, and no traces of an opening in the body could be detected. Though this mummy was of a person six feet in height, it was so dried up that it did not weigh more than fourteen pounds. This body was not surrounded either by bandages or by any bituminous or aromatic substance, but was wrapped in four coverings. The first or interior one was made of fine cord doubled and twisted in a peculiar manner, and of large feathers interwoven with great art; the second wrapping was of the same stuff, but without feathers; the third consisted of a deer skin without hair; and the fourth and external covering of another deer skin, but with hair. The bodies of a man and woman found in a saltpetre cave in Warren County, Tennessee, are also described by the same writer; these were wrapped in deer skins, and in a cloth made of the fibres of the bark of trees and ornamented with feathers; while in the hand of the female was a fan composed of turkey's feathers, and made to open and shut at pleasure. These relics of past ages have greatly occupied the attention of American antiquarians, but the race to which they belong, evidently anterior to the Indian, is not decided.

Naturalists have expressed the opinion that the horse is not a native of the American continent; according to Linnæus, it is a native of Europe and the East, while Goldsmith makes it to be a

native of Africa; and yet, when the European first set foot upon this continent, vast herds of these animals in a wild state were found roaming at large over the immense prairies of the West. It has been suggested that these may be the descendants of the domesticated animals, once used by the ancient agricultural population who were the former cultivators of the soil. There are also herds of sheep in the north of Mexico apparently quite wild. Of these are two varieties, one called the "Rocky Mountain Sheep," found inhabiting the elevated regions between the 48°th and 60°th parallels of north latitude, and near the head waters of the Columbia, the country at the sources of the Marais, the Saskatchewan and Arthabaska rivers, but less numerous on the eastern than on the western slope of the Rocky Mountains; and a second bearing the name of the American Argali or Ovis Pygargus, believed by some to be identical with the Ovis Ammon of Central Asia, Siberia, and Kamschatka. The wild *bison*, of which the domestic ox is a variety, are also found in large herds, and these, together with immense flocks of wild *turkeys*, luxuriate at perfect liberty upon the rich pastures of the great prairies of the West.

The *turkey* was supposed by some to be a native of Peru, South America, by others to be a native of the East Indies, or Japan, or probably some of the islands of the Indian Ocean, whence it was brought to America by the ancient Malayan maritime adventurers. We see, however, no good reason why naturalists should seek an origin outside of America for any tribe of animals found on this continent, when the modern white men first set foot on it; still not attempting to deny that some of these tribes might have had an origin, if we may speak of an origin in some other part of the globe, for it cannot be said that there was no intercourse of men between these continents in the ages preceding the discovery of America by the modern Europeans, which undoubtedly there was.

Tropical plants and varieties of grasses common to other countries are found growing in the Western sections of the continent; among these are the maize and garden bean.

From the various relics which have been mentioned, and others to which we need not here refer, we gather that a great and powerful people, advanced in arts and agriculture, and acquainted with the use of metals, held sway over this continent prior to the red Indians. Ruins of ancient *pueblos*, remarkable for their construction and immense size, some of which were erected on the opposite sides of rivers, and connected by bridges, are scattered over the country, south of the great prairies of the West. The configuration of the surface, the existence of river beds where the water has long since ceased to flow, whose banks, once gay with a tropical verdure, plants,

flowers and trees, have now given place to deserts of sand, presenting everywhere a picture of desolation; so that Domenech and others who have explored these regions and written upon them, believe that, at some indefinite period of the past, this whole territory was densely populated by a settled agricultural people, but who by some great geological change, perhaps volcanic, taking place in the country, changing the soil from a rich and fertile country, well watered, into a dry, barren, sandy desert, were compelled to seek a settlement elsewhere.

Domenech thinks that the great centres of this ancient civilization were near the great lakes in Ohio, and in Mexico, and Peru, whither the natives repaired to have commercial interchange with each other. This he deduces from the discovery of mica sheets from the Alleghanies, shells from the Gulf of Mexico and Florida, and obsidian from the mountains of Mexico, and copper instruments, with specimens of ore, from Lake Superior, which are found buried, together with ornaments of silver, brass, stone and bronze, in the ancient mounds of Ohio, and whose origin and history seems as impenetrable as the night of ages. In the history of the ancient American races are recognized in order, by antiquarians, the age of rough stone implements, the age of polished stone implements, and the age of copper tools. The ages of brass and iron instruments and tools are later, and that in which we live.

Since there exists such multitudinous relics of past civilization on this continent, it becomes a matter of interest to enquire whether, among the ancient traditions of America, or the records and mythologies of the Old World, any traces can be discovered of an ac quaintance with this continent by the people of the other hemisphere. Inquirers of the greatest care and intelligence believe that communication between the two continents did exist at a very remote period. Evidences of this they discover in the ruins to which we have referred, and in the traditions of ancient America, as well as in the traditions and myths of classical antiquity. The antiquities of Mexico and Central America reveal religious devices, symbols, and ideas almost identical with those found in all countries of the Old World where communities called Cushite formerly existed. They exhibit evidences of the worship of the heavenly bodies, with its usual orphic and phallic accompaniments. Humboldt, when visiting America, observed these remains of past civilization, and was convinced that communication between the two continents formerly existed. The Abbé Domenech, who traversed the desert wilds of America and Mexico, also produced two volumes as the results of his discoveries, which abounded with evidences of an extinct civiliza-

tion. Humboldt found evidences of it in the religious symbols, the hieroglyphics, the architecture, and the social customs, made manifest among the ruins, which he felt sure came from across the seas, and in his view the date of this communication was older than the present division of Asia into Chinese, Mongols, Tartars and Hindoos.*

The high state of agriculture, mechanical art, commerce, the profusion of gold and copper, and the religious views and domestic manners which were found to exist among the long since extinct Aztec and Zezcucon people found in possession of the Eastern Shores of Mexico by the rapacious Spaniards, are indicative of a long period of peaceful possession and prosperity in that country, during which time they had succeeded in surrounding themselves with every imaginable kind of luxury; and there are traces of a superior civilization even beyond the Aztecs. They possessed a system of numerals, and divided their year into 18 months of 20 days each, five complementary days being added, as by the Egyptians, to make up the full number of 365 days. They were also devoted to astrology, and their knowledge of astronomy is truly astonishing. They used the sun-dial to mark the day, which was divided into 16 parts, commencing at sunrise. An immense circular block of carved stone, disinhumed in the great square of Mexico, in 1790, has supplied the means of establishing some interesting facts in regard to ancient Mexican science. This colossal fragment, on which the calendar is engraved, shows that they had the means of determining the hours of the day with precision, the periods of the solstices and the equinoxes, and of the transit of the sun across the meridian of Mexico. It is hardly possible that a nation so far advanced as the Aztecs in mechanical science should not have made considerable progress in the mechanical arts. A degree of refinement is, indeed, shown by intellectual progress of any kind, requiring, as it does a certain cultivation of both useful and elegant art. Agriculture was in the same advanced state in Mexico as were the other arts of social life. Their chief productions consisted of beans, Indian corn or maize, the cacao, from which chocolate is derived, the vanilla, used for flavoring their food and drink. The gigantic stalks of the great staple, Indian corn, afforded them a saccharine matter which supplied the natives with sugar little inferior to that of the cane itself; but the most wonderful production of the soil was the great Mexican aloe, or Maquey tree, whose clustering pyramids of flowers, towering above their dark coronals of leaves, were seen sprinkled over

* See "Researches concerning the institutions and monuments of the ancient people of America."

many broad acres of the table-land. Its bruised leaves afforded a paste, from which they manufactured paper; its juice was fermented into an intoxicating beverage called *pulque*, of which they were excessively fond; with its leaves the more humble dwellings were thatched; thread, of which coarse stuffs were manufactured, and strong cords were made from its tough and twisted fibres; pins and needles were made from the thorns on the extremity of its leaves; and the root, when subjected to a process of cooking, was converted into a palatable and nutritious food; it furnished, in short, meat, drink, clothing and writing material to the Aztec. A large variety of plants, many of them of great medicinal virtue, have been introduced into Europe from these regions. The Mexican flowers, also, are of the most variegated and gaudy colors, and now form the greatest attraction of European greenhouses. They were well acquainted with the mineral as well as the vegetable treasures of their country. They drew silver, lead, and tin from the mines of Tasco; also copper from the mountains of Zacotollan, taken not only from the crude masses on the surface, but also from veins wrought in the solid rock, into which they opened extensive galleries. The gold which they found on the surface and gleaned from the beds of rivers they cast into bars, in which state, or in the form of dust, it made part of the regular tribute. Iron existed in the soil, but they knew nothing of its uses. They found a substitute in an alloy of tin and copper, and with tools made of this bronze they could cut not only metals, but it is said, with the aid of siliceous dust, the hardest substances, as basalt, porphyry, amethysts and emeralds. They fashioned these last, which were found very large, into many curious and fantastic forms. They also cast vessels of gold and silver, carving them with their metallic chisels in a very delicate manner. Some of the silver vases were so large that a man could not encircle them with his arms. They imitated with great nicety the figures of animals; and, what was extraordinary, could mix the metals in such a manner that the feathers of a bird or the scales of a fish should be alternately of gold and silver. They used another metal, made of obsidian, a transparent mineral, exceedingly hard, found in abundance in their mountains, which they manufactured into knives, razors, and serrated swords. It was said to take a keen edge, although it soon became blunted; and with it they wrought the various stones and alabasters used in the construction of their public works and principal buildings. These ancient Mexicans made utensils of earthenware for their ordinary purposes of domestic life. They made cups and vases of lacquered or painted wood, impervious to wet and gaudily colored. Their dyes were obtained both from mineral

and vegetable substances. Among these was the rich cochineal, the modern rival of the far famed Tyrian purple; with this they gave a brilliant color to the webs which were manufactured of every degree of fineness from the cotton plant, which grew in abundance in the southern parts of the country. They also employed the art of interweaving with these the delicate hair of rabbits and other animals, which made a cloth of great warmth, as well as beauty, and of a kind altogether peculiar to themselves; on this they often laid a rich embroidery of birds, flowers, or other fanciful devices.

But the art in which they most delighted was the plumage or feather work; and with this they could produce all the effect of a beautiful mosaic. The gorgeous plumage of the tropical birds, especially of the parrot tribe, afforded them every variety of color; and the fine down of the humming-bird, which revelled in swarms among the honeysuckle bowers of Mexico, supplied them with soft aerial tints, which gave an exquisite finish to the picture. The feathers, pasted on a fine cotton web, were wrought into dresses for the wealthy, hangings for apartments, and ornaments for the temples. The profusion in which gold existed in Mexico and Peru, and the estimation in which it was held by these ancients, was best seen in the manner in which it was used in the liberal decoration of their temples, "which" one writer says, "shone resplendent by reason of the abundance in which it was used," and for the adornment and magnificence of their princes. Their palaces, gardens, fountains, and temples exceeded those of every other portion of the country, a detailed account of which is given by Prescott in his reference to the golden age of Tezcuco. Translations into the English and Spanish languages have been made of ancient manuscripts found in Mexico by the Spaniards at the time of their conquest of that country, one especially contains the advice of an Aztec mother to her daughter on the occasion of her marriage, inculcating the precepts of monogamy, conjugal fidelity, the idea of a Supreme Being, to whom all are responsible, and who sees all our actions. This document also contains an admonition to the bride to persevere in the practice of those graces and virtues which had distinguished her ancestors; advice in fact altogether equal to what might be expected of a Christian mother at the present day. The Abbé Brasseur de Bourbourg shows that the symbols of phallic worship were described by Spanish writers at the time of their conquest; that they were frequent in the countries of Central America, abounding in Colhuacan, a city on the gulf of California, and at Panuco (the former was at one time a flourishing city, the capital of an important kingdom); here phallic institutions had existed from time immemorial. In the

temples at Panuco phallic symbols abounded, and also on the public monuments. These, with the serpent devices, the sun-worship, the remarkable knowledge of astronomy accompanying them, shows a system of religion of which the Abbé says: "Asia appears to have been its cradle, as that of the social institutions which it consecrated."

It is said that the traditions of the inhabitants of Mexico and Central America uniformly assert that the ancient American civilization came originally from the east "across the ocean." The Abbé de Bourbourg, speaking of the earliest civilization of the inhabitants of these countries, says: the native traditions generally attribute it to "bearded white men, who came across the ocean from the east." The history of Sahagun also states that, according to the traditions of the people of Yucatan, "the original civilizers came in ships from the east." Montezuma, it is said, related a similar tradition to the Spaniards. There were in Central America three classes of ancient inhabitants, first, the Chichimecs, who seem to have been the uncivilized aborigines of the country; the Colhuas, who were the first civilizers, and who were the "bearded white men" who came in the early times across the Atlantic, and who built Palenque and other cities, originated the oldest and finest monuments of the ancient civilization, and established the great kingdom of Kibalba celebrated in tradition and history; it comprised Guatemala, Chiapas, Yucatan, and probably other countries. The third class of inhabitants mentioned are the Toltecs, a powerful race, whom Humboldt, strangely enough, supposed to have derived their origin from the Huns, and who came much later as peaceable immigrants, but, uniting with the uncivilized Chichimecs, caused a civil war and acquired the ascendency over the land.

Desiri Charmay, in speaking of the ruins of the ancient city of Mitla, points out the most ancient architecture, paintings, mosaics and artistic designs as being in the highest style, showing marvellous workmanship; while the later additions are in a much lower style, and seem to be the work of a people much less advanced in culture and skill than the original founders of the city. The most remarkable and finest monuments found in those countries are believed to belong to the remains of the ancient kingdom of Kibalba. Other traditions point to an existing acquaintance with the country among the Chinese and Malays. The Abbé de Bourbourg relates that there was a constant tradition among the people who dwelt upon the Pacific Coast that people from distant countries across the Pacific formerly came to trade at the ports of Coatulco and Pechugui, which belonged to the Kingdom of Tehauntepec. Again the traditions of Peru tell

of people who came to that country by sea and landed on the Pacific Coast, thought probably to be the Malays of the great Malayan maritime empire that flourished in ancient days.

If we now turn to the ancient traditions, mythology, and records of the Eastern world, we shall find much that points directly to an acquaintance with the "Atlantic," or "continent beyond the sea," which either appears to refer to America or to be utterly meaningless, which latter opinion does not seem to be entertained by any antiquarians of the present day. In ancient mythology there is reference to a great continent beyond the Cronian Sea, meaning the Atlantic; and it was in the Atlantadis of Homer and Horace, beyond the western waters, that the ancient poets placed their Elysian fields.

Theopompus, a learned historian and celebrated orator who lived in the days of Alexander the Great, relates, in his work entitled "Thaumasia," a very ancient dialogue which took place between Midas, King of Phrygia, and Silenus, in which the latter is made to say: "There is a continent beyond the sea, the dimensions of which are immense, almost without limit, greater than Asia, Europe and Lybia (Africa) together, and so fertile that animals of a prodigious size are to be seen there, as likewise a race of men calling themselves Meropes, whose stature is much greater than that of ordinary men, and who attain to an extreme old age; that a great many large towns and cities were to be found on that continent, one of which contained above a million of inhabitants, and having different laws and customs from those of the people of Asia, Africa, and Europe; and, finally, that gold and silver were found very common over all the surface of that vast continent. Another writer relates that these Meropes were so persuaded that there existed no continent but their own that out of curiosity alone some of them crossed the ocean and visited the hyperboreans. Another ancient writer, Diodorus of Sicily, in his fifth book, chapter 11, has an important passage concerning this continent, which is historical, in which he affirms that some Phœnicians were cast upon the shores of an exceedingly fertile island situated opposite to Africa. The passage referred to reads as follows: Over against Africa lies a very great island in the vast ocean, many days' sail from Lybia westward. The soil is very fruitful, it is diversified with mountains and pleasant vales, and the towns are adorned with stately buildings. Its shores are indented with countless navigable rivers; its fields are well cultivated and dotted with delicious gardens and with plants and trees of every sort; finally he describes it as being the most beautiful country known, with inhabitants who live in spacious dwellings, possessing

abundance of every kind. In regard to this the Abbé Domenech says: The recital made by Diodorus exactly corresponds with that of the first Spaniards who landed in Mexico.

It is related of one Hanno, who lived before the foundation of Rome, that he made a voyage beyond the Pillars of Hercules (the straits of Gibraltar) and visited a strange coast, which he reached by keeping due west, after traversing the ocean for thirty days. The best authors suppose this coast to have been that of one of the West India islands, or of the mainland of America. Homer, Solon, and Horace speak of the Atlantides as being islands situated at a distance of ten thousand stadia (a stadium is 606¾ English feet) west of Europe and Africa. Aristotle speaks of an island placed beyond the Straits of Hercules, in these words: "It is said that the Carthaginians have discovered beyond the Pillars of Hercules a very fertile island, but which is without inhabitants, yet full of forests, navigable rivers, and abounding in fruit; it is estimated many days voyage from the mainland." Plutarch also has a passage quoted by Humboldt, in which mention is made in unmistakable terms of a great transatlantic continent, and of a mysterious stranger who came from that distant country to Carthage, about 300 B. C., where he lived many years. According to Cabrera the first Carthaginian emigration to this Western Continent took place during the first Punic war. According to Sandoval a succession of emigrations came from Ceylon, Java, and from Southern India to America, many centuries before Christopher Columbus. In support of this statement figures representing the god Boudha of Java, seated on a Siva's head, were found at Uxmal, in Yucatan. It is well established that a knowledge of the American continent existed in China and Japan long before the time of Columbus. M. de Guigies, relying upon the chronicles preserved in the Chinese work, Pran Y tien, attributes the Peruvian civilization to emigrations proceeding from China, from Japan, and the East Indies; recent investigations, it is thought, confirm this opinion. M. Paravey, in the year 1844, proved that the province of Fu-Sang, described in the Chinese annals, was nothing less than Mexico, known to them in the fifth century; and the Abbé de Bourbourg says, in his introduction to the *Popol-Vuh*: "It has been known to scholars nearly a century that the Chinese were acquainted with the American continent in the fifth century of our era; their ships visited it; they called it Fu-Sang, and said it was situated at the distance of 20,000 li (about 7000 miles) from Ta-Han.

J. Hanly, the Chinese interpreter at San Francisco, has lately written an essay upon this subject, in which he makes the following statements, drawn from Chinese historians and geographers: Four-

teen hundred years ago even America had been discovered by the Chinese, and described by them. They stated that land to be about 20,000 Chinese miles distant from China. About 500 years after the birth of Christ, Buddhist priests repaired thither and brought back the news that they had met with Buddhist idols and religious writings in the country already. Their descriptions in many respects resemble those of the Spaniards a thousand years after. They called the country "Fu-Sang," after a tree which grew there, the Maquey tree, whose leaves resemble those of the bamboo, whose bark the natives made clothes and paper out of, and whose fruit they ate. These particulars correspond remarkably with those given by the historian Prescott about the Maquey tree in Mexico. The accounts given by the Chinese and Spaniards, although a thousand years apart, agree in stating that the natives did not possess any iron, but only copper; that they made all their tools for working in stone and metals out of copper and tin; and that they, in comparison with the nations of Europe and Asia, thought but little of the worth of silver and gold. The religious customs and forms of worship presented the same characteristics to the Chinese fourteen hundred years ago. There is, moreover, said to be a remarkable resemblance between the religion of the Aztecs and the Buddhism of the Chinese, as well as between the manners and customs of the Aztecs and those of the people of China. It is, however, remarkable, and may be thought confirmatory of the idea of emigration from China to America, at some remote period, that at the time that America was discovered by the Spaniards the Indian tribes on the coast of the Pacific opposite to China for the most part enjoyed a state of culture of ancient growth, while the inhabitants of the Atlantic coast were found in a state of original barbarism. The stone arrow-heads, lance-heads, hatchets and tomahawks found in Europe, India, Japan, and America, are so similar to each other that it is often impossible to distinguish them by their form. It is remarkable that everywhere except in America these weapons are believed by the common people to be thunder-bolts. They are called elf-bolts in Scotland; and Pliny speaks of them as *Ceraunix;* while in China and Japan the same origin is ascribed to them.

M. Leon de Rosny has ascertained that Fu-Sang is the topic of a curious notice in the great Japanese Encyclopedia, which enjoys the curious name of the "Wa-kan-san-tai-dron-ye." In that work it is said to be situated east of Japan, beyond the ocean, at the distance of about 20,000 Chinese miles from Ta-nan-kouek. Great stress is laid upon these records of the Chinese and Japanese, as they are

peoples that do not deal in myths, but in actual facts and historical events.

Let us now turn our attention to the Atlantic coasts, and enquire into the early communication with this continent by Europeans, prior to Columbus. Following the chronological order of events as they seem to have transpired here we first refer to the emigration of the Ires, or people from Ireland, who came to this continent by way of Iceland at rather uncertain epochs. The opinion of learned men, familiar with the antiquities of the Western world, is that, as in the most ancient records of Iceland the first inhabitants of that island are called "men come from the west by the sea," so we may conclude that Iceland was not colonized by people coming direct from Europe, but by Ires who had returned from America, who at an early period had been transplanted, and who returned from Virginia and the coast of Carolina (called Great Ireland) to settle in the island of Papar and the south-eastern coast of Iceland. In the ancient documents preserved in Iceland accounts are given of Christian Papas, or fathers who returned from Great Ireland on the West (America) to Iceland, to instruct the Icelanders in the principles of the Christian religion, about the year 800 A. D. Accounts are also given of persons who, having been cast away in ships, landed upon a western coast called "huitra manna land" or the land of the white men. These stories are considered as authentic, and as an important proof in favor of the prevailing opinion that at a very early period of the Christian era Irish colonies existed on the coast of the Carolinas and farther south. The Abbé Brasseur de Bourbourg, in a note to his translation of the Popol-Vuh, says on this matter there is an abundance of legends and traditions concerning the passage of the Irish into America, and their habitual communication with that continent many centuries before Columbus was heard of.

An Irish saint, named Vigile, who lived in the eighth century, was accused by Pope Zachary of having taught heresies on the subject of the antipodes. He at first wrote to the Pope in reply to the charge, but afterwards went to Rome to justify himself; and there he proved to the Pope that the Irish had long been accustomed to communicate with a transatlantic world. These facts are said to be preserved in the records of the Vatican. It is now an historical fact also that the Northmen, sailing from Iceland, not only discovered America in the tenth century, but also established colonies on the coast of New England, and preserved a communication with these colonies for two centuries. In 877, Gunbiorn, the Icelandish navigator, first saw the mountain sea-board of Greenland. It appears from the Scandinavian manuscript, in which are to be found the

accounts of the Normans' first voyages to America, that in 983 the celebrated Ari Marsson, while sailing southward, was cast by a storm upon the coast of this continent, which he called *Irland it Mikla*, or Great Ireland. In 986, Eric, surnamed the Red, established on these shores the first colony, composed of emigrants from Iceland. Afterwards, in 1124, a bishopric was instituted here called Garda, which existed for upwards of 300 years. In the year 1000, Lief, the eldest son of Eric the Red, sailed with thirty-five companions in search of new discoveries, when he discovered Newfoundland, and called it Litla Helluland; re-embarking he arrived in the country situated between Newfoundland and Canada, which he called Markland (now Labrador); pursuing his voyage farther south he landed on an agreeable coast, where he found an abundance of vines, which he called Vinland (now New England); here he made a settlement, which flourished for a length of time, and was visited in 1121 by the first bishop of Greenland, Eric Upu, of Irish origin, for the purpose of confirming the colonists of Vinland in the doctrines of Christianity. In the year 1002 another expedition under Thorwald, visited this coast and landed at Cape Cod, near Boston, where the leader was killed in an encounter with the Esquimaux. In the year 1006, Thorstein embarked on a similar expedition, but was unsuccessful. Thorfin, the most celebrated of the first explorers of America, landed in the year 1007 on the island called *Martha's Vineyard*, on the New England coast, and spent two winters in the bay of Mount Hope, close to Seconnet. From this time to the middle of the fourteenth century, very little can be ascertained concerning the Scandinavian colonies in America. In the twelfth century, Norwegian colonies existed in Greenland. In 1170 the Welsh prince, Madog, was quite certain of the existence of America, for, it is said, he sailed away westward, going south of Ireland, to find a land of refuge from the civil war which was raging among his countrymen. The Welsh annals inform us that he found the land he sought, and having made preparations for a settlement, he returned to Wales, secured a larger company, that filled ten ships, and then sailed away again and never returned. With reference to this Welsh colony we may state that in 1660, the Rev. Morgan Jones, a Welsh clergyman, seeking to go by land from South Carolina to Roanoke, was captured by the Tuscarora Indians. He declares that his life was spared because he spoke Welsh, which some of the Indians understood; that he was able to converse with them in Welsh; and that he remained with them four months preaching to them in Welsh. Dr. Williams, in his work on the "Story of Prince Madog's emigration," published in 1791, explained Mr. Jones' statement by assuming that the Welsh colony,

becoming weakened, had become incorporated with those Indians; and it is well known that in early colonial times the Tuscaroras were sometimes called "White Indians." It is known that the Northmen had colonies in New England long before Prince Madog's colony sailed for the Western continent; and one able writer says on this subject: "It it not so well known, but is nevertheless quite true, that they were preceded in Iceland by the Irish, and in voyages to America by the Irish and Basques; the latter, he says, "were adventurous fishermen, who were accustomed to visit the north-east coast of America from time immemorial." Thus it appears that sufficient evidence is afforded by ancient European records to warrant us in believing that America was not unknown to the ancients, and was comparatively well known to Europeans, in the early part of the Christian era, centuries before Columbus was heard of or the classical nations thought of changing their patristic geography.

The period of time which must have elapsed since the abandonment of the ancient monuments of America, of which we have spoken above, sufficient to allow of successive forests of so ancient a character to have lived and died upon them, taken together with other evidences of antiquity, lead us to suppose that the people by whom they were constructed lived and flourished in times perhaps long anterior to our historic ages; and this being the case we are told that those nations claim an antiquity which to Europeans appear almost fabulous. The Biblical chronologies extant in the present day appear to have been made out to show that the earth itself is scarce 6000 years old; but it should be remembered that the Scriptural writings furnish no data whereon to found any other than an uncertain and speculative chronology. When we look into the book of nature, which proclaims in such eloquent terms the wisdom and design and the progressive operations of the Creator, and which cannot lie, we find it tells us of events of such magnitude as to require prodigiously long periods of time for their accomplishment, making its moments appear eternities. What if in it we read that there are fosilliferous rocks which have been slowly raised ten thousand feet above the level of the sea, and that so late in the world's history as since the beginning of the tertiary period? What if it informs us that the peninsula of Florida, which is coraliferous, upon which are found monuments of ancient races, abandoned scores of centuries ago has not required less than 135,000 years in the process of its formation? Or if we discover from it that the great chasm, seven miles in length, through which the Niagara river flows from Goat Island to Queenstown Heights, required a period of over 30,000 years for its excavation; or that in certain alluvial beds numerous speci-

mens of the mastodon giganteus have been found on the shores of Lake Ontario, one at a great depth in Burlington Heights, Hamilton, and one in the old river bed on Goat Island; and that these individuals must have lived and flourished (says Sir Charles Lyell in his "Age of Deposits in North America"), previous to the gradual excavation of that deep, long chasm; for this ravine is not only postglacial but also posterior in date to the mastodon-bearing beds. Or, again, if the depression of the fern forests which now form the coal beds of Nova Scotia took place at the rate of four feet in a century, there was required a period of 375,000 years for their completion to their present depth. Or, as a forest can scarce produce more than two or three feet of vegetable soil in a thousand years, the dirt beds are the work of hundreds of centuries. Or, if it tells us that the delta of the Mississippi could only have been formed in many tens of thousands of years (estimated by Sir Charles Lyell at 100,000);* and that four successive cyprus forests lay buried in its depths and yet that it is only as a work of yesterday compared to the inland terraces of the Mississippi river; that skeletons have been disinhumed in this same delta to which Dr. Dowler assigns an antiquity of 40,000 years at least. Or, if, as Sir Charles Lyell says, it be admitted that the human remains discovered at Natchez, in connection with those of the Mastodon and Megalonyx, were found in their primitive bed, then a race of human beings must have occupied that country more than a thousand centuries ago; and if a thousand centuries ago, we may say why not tens of thousands of centuries; yea, a beginningless succession of centuries; for who will put a beginning to the human race other than it has now? To many who with difficulty shake off their patristic chronology such statements appear wonderful, and yet they are the deductions the most learned and profound geologists have drawn from their perusals of the book of nature. Who, then, will say that the poet was not partly right who penned that remarkable line: "Thou canst not find one spot whereon no city stood."

Before this continent was discovered by Columbus, Europeans generally did not know that it existed, with its races of men, its many languages, and its great natural wonders; but since that time, the progress of discovery has been rapid, and each continent and

A good part of this research in illustration of the "Civilization of the Ancient Americans," we have taken from a lecture on that subject by Dr. W. E. Bessey, of Montreal, a gentleman of great archæological and antiquarian research, and an accurate critical scholar.

* This refers to the whole area of the delta, and not only to what is now commonly understood as the delta, whose estimated period of formation is about 35,000 years.

island that has been discovered has exhibited its peculiar human inhabitants with their language, its flora and fauna. And while the Europeans and Asiatics, in their vain imagination, were setting up theory after theory as to the existence and nature of the Deity,—yea, and adding one deity to another in their assumed hierarchy of heaven; while they were expounding their doctrines of a literal creation of the earth in six literal days, of redemption, transubstantiation, total depravity, or predestination; while they were magnifying themselves in their own estimation by the invention of such systems, and the inculcation of such dogmas they were all but totally ignorant of the earth on which they lived; much more of the deity in the immensity of his nature, whom they pretended to know. Alexander and the Romans both made great mistakes when they sat down under the impression that they had conquered the world. There remained vast continents on the earth which they had never seen, never dreamed of; and there remained even in their own hemisphere a far greater extent of land than that which they had conquered, and which they had never explored. There remained the vast continent of Africa, with its numerous tribes and languages; and equally vast Eastern and Northern Asia and Northern Europe. The Hindoos and the Chinese have literature which goes back for tens of thousands of years; but our European system-makers would place the beginning of the existence of the earth and of men at less than six thousand years ago. The ancient Pelasgians, inhabitants of Eastern Europe, including Greece and Italy, called themselves Autochthons, that is, "offsprings of the earth." This seems to have been their traditional belief of their origin. It was not, however, literally true, for no human being ever sprung from the earth as such. Nor did any real human being ever live that was not produced by his own kind, male and female.

Mr. Darwin in his work on "The Descent of Man, and Selection in relation to Sex," makes the following statement as to the orign and descent of man: "The most ancient progenitors in the kingdom of the vertebrata, at which we are able to obtain an obscure glance, apparently consisted of a group of marine animals, resembling the larvæ of existing *Ascidians*. These animals probably gave rise to a group of fishes, as lowly organized as the lancelet; and from these the Ganoids and other fishes like the Lepidosiren must have been developed. From such a fish a very small advance would carry us on to the amphibians. We have seen that birds and reptiles were once intimately connected together; and the Monotremata now, in a slight degree, connects animals with reptiles, but no one can at present say by what line of descent the three higher and related

classes, namely, mammals, birds and reptiles, were derived from either of the two lower vertebrate classes, namely, amphibians and fishes. In the class of mammals the steps are not difficult which led from the ancient Monotremata to the ancient Marsupials, and from these to the early progenitors of the placental mammals. We may thus ascend to the Lemuridæ ; and the interval is not wide from these to the Simiadæ. The Simiadæ then branched off into two great stems, the New World and Old World Monkeys; and from the latter at a remote period, Man, the wonder and glory of the universe, proceeded. Thus, we have given to man a pedigree of prodigious length, but not, it may be said, of noble quality."

This is the theory which Mr. Darwin has propounded, or the conclusions to which he has come concerning man's origin. In it we have five noticeable stages (we may make as many more as we please *ad infinitum*) in the descent of man from an insignificant salt-water animal to his present state. The first stage consists of a group of marine animals resembling the larvæ of existing ascidians (Greek ἀσκός signifying a leather bottle, or wine skin, having two necks); called ascidians from the resemblance which these little animals bear to a two-necked jar or bottle. But according to the statement the progenitors of man only *resembled* the larvæ or spawn of these bottle-shaped animals. The second stage was probably a group of fishes. The third the Amphibians, which may represent the reptiles in general. The fourth we may take as the Simiadæ which will represent all the ape and monkey tribes as well as the Lemurs. And the fifth, the present stage, as Man.

The difficulty with us is, how any man, be his mental capacity and ability never so great, could command such a stretch of imagination as to conceive the human race, in all its colors and varieties, to have been derived through an infinite series of changes from the lowest species of salt-water animals. Fishes have come down to us through all the series of geological changes from the most ancient period of which geology has any knowledge of existing organic beings, and still they are fishes. And shall it not be allowed that man has also thus come down to us,—man in the most ancient periods as well as now,—since there is really no evidence to the contrary?

For our own part we do not consider that permanency in one form or descent through change of form makes the matter either better or worse for man,—makes him of itself, either a more or less respectable being, and while admitting that Mr. Darwin has displayed great ability and exercised great labor and pains in the fabrication and illustration of his theory,—yet in our opinion it remains a theory still. Men should consider that Word of Truth (see Gospel of John,

chapter i.) which represents the Logos, the son, or man in whom is exhibited the reason (and speech) as existing eternally with Deity. This appears to imply that the head or reason domination, which now characterizes man always existed whether or not always in connection with a body exactly of the human shape.

But this theory Mr. Darwin bases mainly upon geological discovery. He should bear in mind that the insignificant scratchings which geologists have done on exceedingly small spots of the earth's surface, amongst, for the most part, rocks of aquatic origin, are not by any means sufficient to base a theory upon which goes to assert impossibilities with respect to any thing connected with the earth or to man. What do men know about the tens of thousands of genera and species of aquatic plants and animals which may now live on the beds of the mighty oceans of the earth? What do they know, but that most of the fossilized aquatic animals which geologists have discovered are now represented by living species in the oceans and seas, salt water and fresh? Some species which existed in time past may have entirely passed away, and their place may be supplied by the multiplication of individuals in remaining species. But the discoveries of geology thus far do not afford any sufficient reason to believe that most of the species of plants and animals which existed in times past are not now represented in living species. These species may be modified in size, but they are of the same structure. Man of the past, of whatever size, and we know that his size has varied in different ages, is represented by man of the present. And so, we think, men will find with respect to most of the other species of animals, as well as of plants, if they only take time to make sufficient research, or if they ever *can* do it. By the time that even the vast continents of South and North America, Australia, and all the Islands of the Pacific and Indian Oceans, as well as Asia, Africa, and Europe, have been thoroughly explored by naturalists and geologists, then men will be better able to determine with respect to the land species of both plants and animals of the present and the past. It cannot be said with respect to geological discovery, as it is said with respect to the classes of things that what is true of one member of the class is true of the class in general. The geological discovery of Britain or France or of any other part of Europe may not be at all a fair representation of the geological discovery which may be made in Tartary, China, Central Africa, Brazil or Utah. Geologists know very well how that alteration is continually taking place in the earth's surface by elevation and depression ; how that their researches hitherto have been among rocks chiefly of aquatic origin ; how that many parts that were once dry land, inhabited by man and land ani-

mals, are now submerged far beneath the surface of the seas and oceans; and how that they could not answer a question, even aproximately, with respect to the relations of past and present species until they would have explored not only all the dry land, but even the beds of the seas and oceans, a thing they cannot accomplish. Even in places on the land surface where fossil remains existed during long ages of the past there may remain no traces of any now, from the fact that they have disappeared by decomposition or some chemical process. But to say that one species of animals or of plants has ever been changed into another entirely different species or has been produced by two entirely different species is asserting a thing of which we have no experience or evidence. Experience is that hybrids do not propagate; they die out. And the appearance of different species of plants and animals in the successive geological strata, which geologists used to attribute to special acts of creation, are well accounted for by the *migration of species* and other causes. All the species of plants and animals have always and permanently sprung from their own seeds. The rose bush never sprung from the seed of the tamarack, the apple tree from the seed of the plum, the bean from the seed of wheat; nor did any one species of plants or animals ever spring from other than seeds of their own kind. Cross breeds of animals, such as mules, always exhibit characteristics unmistakably different from either of the species that entered into their production; and it is by the appearance and characteristics that the different species are determined. "I strongly imagine," says Prof. Huxley, in in his Lectures to working men, "that if it were not for the peculiar appearance that fossilized animals have that you might readily walk through a museum which contains fossil remains mixed up with those of the present forms of life, and I doubt very much whether your uninstructed eyes would lead you to see any vast or wonderful difference between the two. If you looked closely you would notice in the first place a great many things very like animals with which you are acquainted now, you would see differences of shape and proportion, but on the whole a close similarity." With respect to Mr. Darwin's theory, we have but to add to what we have already said, that strange, indeed, is the course taken by some speculative minds! The great mass of mankind remain yet unenlightened; and when an individual arises who has become possessed of information which he wishes to impart to the rest, his object should be to instruct and enlighten them in the truth, and not to propound erroneous theories which will tend only to confuse the people's minds and render the truth more difficult to be attained.

Origin of Organic beings illustrated.

Nor will any knowledge whatever that we have with regard to the origin of species militate against anything we have said as to their probable permanent existence in the main as they now exist. It is a fact universally known that every living creature commences its existence in a form different from and simpler than that which it eventually attains. The apple-tree is a more complex thing than the rudimentary plant contained in the seed; the caterpillar is more complex than the egg; the butterfly than the caterpillar; and the series of changes which each of these beings runs through from its rudimentary state to its perfect condition is called its development. In the higher animals these changes are exceedingly complicated, but within the last half century they have become completely simplified by the labors of some eminent German scholars, as Von Baer and others; so that the successive stages of development which are exhibited by an animal, for example, a dog, are well known to the embryologist.

If we consider attentively the nature and the order of the stages of canine development it will serve as an illustration of the process in the higher animals generally.

The dog, like all animals except the very lowest (and it is thought that further enquiries may not improbably remove the apparent exception), commences its existence as an egg; as a body which is in every sense as much an egg as that of a hen, but does not possess that accumulation of nutritive matter which gives to the bird's egg its large size and domestic utility; and is without the shell which would not only be useless to an animal incubated within the body of its parent, but would separate it from the source of that nutriment which the young creature requires and which the minute egg of the mammal does not contain within it.

The egg of the dog is, in fact, a little spheroidal bag formed of a delicate transparent membrane called the *vitelline membrane*, and is about the 130th to the 125th of an inch in diameter. It contains a mass of nutritive matter, the *yelk*, within which is enclosed a second much more delicate spheroidal bag called the *germinal vesicle* (a). In this is situated a more solid round body termed the *germinal spot* (b). The egg or ovule is originally formed within a gland from which in due time it becomes detached and passes into the living chamber fitted for its maintenance and protection during the protracted process of gestation. Here placed in the required conditions this minute and apparently insignificant particle of living matter be-

comes animated by a new and mysterious activity. The germinal vesicle and spot cease to be discernible (their precise fate being one of the problems of embryology yet unsolved) but the yelk becomes

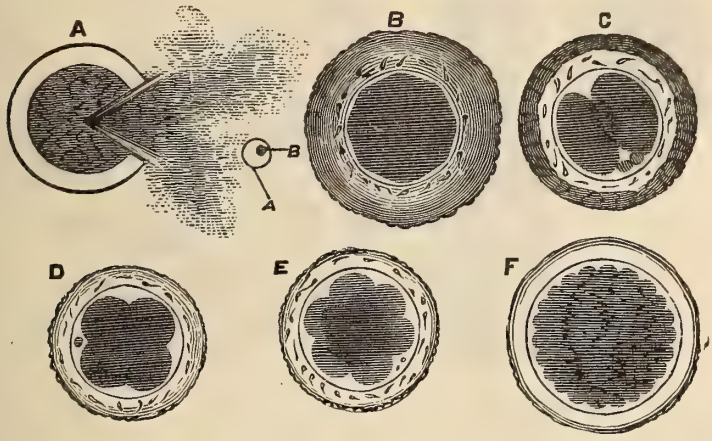


PLATE I. A, egg of the dog with *vitelline membrane* burst so as to give exit to the yelk, the germinal vesicle (a) and its included spot (b) B. C. D. E. F. successive changes of the yelk indicated in the text.

circumferentially indented as if an invisible knife had been drawn around it and thus appears divided into two hemispheres (C). By this repetition of the process in various planes these hemispheres become subdivided so that four segments are produced (D); and these in like manner divide and subdivide again until the whole yelk is converted into a mass of granules each of which consists of a minute spheroid of yelk substance inclosing a central particle called the *nucleus* (F).

Next the mass of organized cells, as they are technically termed, thus formed, acquire an orderly arrangement becoming converted into a hollow spheroid with double walls. Then upon one side of this spheroid appears a thickening and by and by in the centre of the area of thickening a straight shallow groove (Plate II. A) marks the central line of the edifice which is to be raised, or in other words indicates the position of the middle line of the body *canis incipiens*. The substance bounding the groove on each side next rises up into a fold, the rudiment of the side-wall of that long cavity which will eventually contain the spinal marrow and the brain, and in the floor of this chamber appears a solid celular cord called the *notochord*. One end of the enclosed cavity dilates to form the head (Plate II. B), the other remains narrow and eventually becomes the tail; the side-walls of the body are fashioned out of the downward continuation of the walls of the groove, and from them by and by grow out

little buds which gradually assume the shape of limbs. Every part, every organ, is at first as it were sketched out in the rough, then

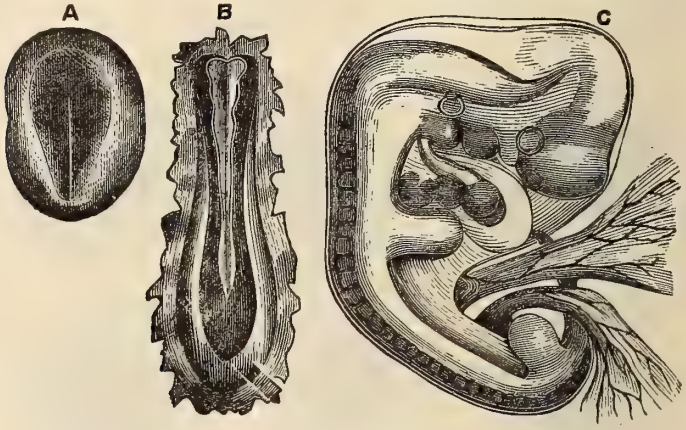


Plate II, A. Earliest rudiment of the Dog. B. rudiment farther advanced, showing the foundation of the head, tail, and vertebrate column. C. the very young puppy with attached ends of the yelk-sac, and allantois and invested in the amnion.

shaped more accurately and at the last receives the touches which stamp its final character. Thus at length the young dog assumes such a form as is shown in Plate II. C. In this condition it has a disproportionately large head as dissimilar to that of a dog as the bud-like limbs are unlike his legs.

A sac attached to the rudimentary intestine and termed the yelk-sac or *umbellical vesicle* contains the remains of the yelk which have not yet been applied to the nutriment and growth of the young animal. Two membranous bags intended to subserve respectively the protection and nutrition of the young creature have been developed from the skin and from the under and hinder surface of the body; the former called the amnion is a sac filled with fluid which invests the whole body of the embryo and serves as a sort of water-bed for it; the other termed the allantois grows out loaded with blood-vessels from the ventral region, and eventually applying itself to the walls of the cavity in which the developing organism is contained enables these vessels to become the channels by which the stream of nutriment required to supply the wants of the offspring is furnished to it by the parent.

The structure which is developed by the interlacement of the vessels of the offspring with those of the parent, and by means of which the former is enabled to receive nourishment and to get rid of effete matters, is termed the *Placenta*. Thus, in the process of embryonic development by a long and gradual series of changes the rudiment here depicted and described becomes a puppy, is born, and

then by steps even slower and less perceptible passes into the adult dog.

There is not much apparent resemblance between a fowl and a dog; yet the embryologist discovers that the young bird commences its existence as an egg in all essential respects primarily the same with that of a dog; but that the yelk of this egg undergoes division, that the primitive groove arises and that the contiguous parts of the germ are fashioned by precisely similar methods into a young bird which at one stage of its existence is so like the nascent dog that ordinary inspection would hardly distinguish between them.

The manner of the development of any other vertebrate animal is much after the same fashion. There is always to begin with an egg having the same essential structure with that of the dog; the yelk of that egg always undergoes division or as it is called segmentation, the ultimate results of that segmentation constitute the structural materials of the body of the young animal; and this is built up round a primitive groove in the floor of which a notochord is developed. There is, moreover, a period in which the young of all vertebrate animals resemble one another not merely in outward form but in all essential of structure so closely that the differences between them are inconsiderable while in their subsequent course they diverge more and more widely from one another. And it is a general law that the more closely any animals resemble one another in adult structure the longer and more closely do their embryos resemble one another; so that, for example, the embryos of a snake and a lizard resemble one another longer than do those of a snake and a bird; and the embryo of a dog and a cat resemble one another for a far longer period than do those of a dog and a bird, or of a dog and an oppossum, or even than those of a dog and a monkey.

The mode of origin and the early stages of the development of man are primarily the same with those of the animals immediately below him in the scale, and it is determined beyond doubt that in those respects he is much nearer to the apes than the apes are to the dog. He originates in a similar germ, passes through the same slow and gradually progressive modifications; depends on the same contrivances for protection and nutrition, and finally enters the world by the help of the same mechanism.

The human ovule is about the 125th of an inch in diameter and might be described in the same terms as that of the dog so that we need only refer to the figure illustrative of its structure. It leaves the organ in which it is formed and enters the organic chamber prepared for its reception in the same way, the conditions of its development being in all respects the same. It has not yet been

possible and only by some rare chance can it ever be possible to study the human ovum in so early a stage of development as that of yelk-division, but there is every reason to conclude that the changes it undergoes are identical with those exhibited by the ova of other vertebrate animals. The remarkable correspondence between the early stages of the canine and human embryos becomes, from what we have seen. more apparent as the development advances.

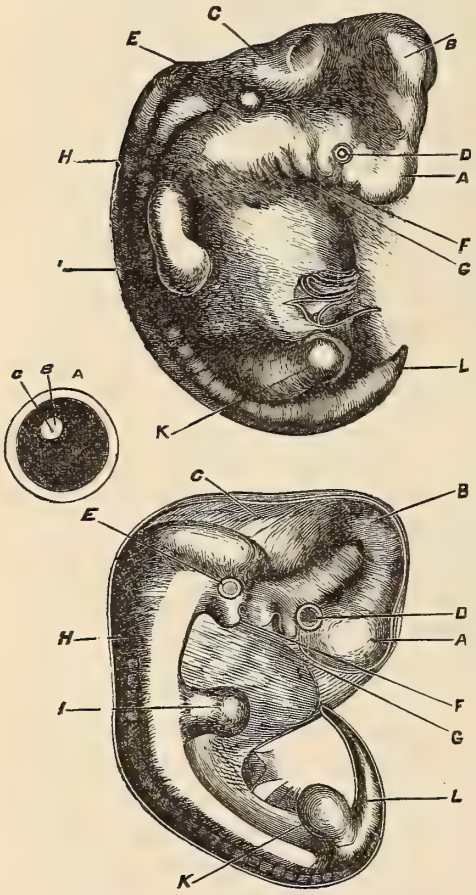


PLATE III. A, Human ovum (after Kolliker). (a) germinal vesicle. (b) germinal spot.
Upper large figure human embryo from Ecker. (This embryo was only ten lines in length, so that the drawing is much magnified.)
Lower large figure, that of a dog, from Bischoff. (This drawing is five times magnified, the embryo being 25 days old.)

a. Fore brain, cerebral hemispheres, etc.
b. Mid brain, cerpora quadri-gemina.
c. Hind-brain, cerebellum, medulla, oblongata.
d. Eye.
e. Ear.
f. First visceral arch.
g. Second visceral arch.
h. Vertebral columns and muscles in process of development.
i. Anterior. } extremities,
k. Posterior. }
l. Tail or os coccyx.

At a tolerably early period the body of the young human being becomes distinguishable from that of the young dog by the different form of their adjuncts the yelk-sack and the allantois. The former in the dog becomes long and spindle shaped while in man it remains spherical; the latter in the dog attains an extremely large size and the vascular processes which are developed from it and eventually give rise to the formation of the Placenta (taking root as it were in

the parental organism so as to draw nourishment therefrom as the root of a tree extracts it from the soil), are arranged in an encircling zone while in man the allantois remains comparatively small and its vascular rootlets are eventually restricted to one disc-like spot. Hence while the placenta of the dog is like a girdle that of man has the cake-like form indicted by the name of the organ. But precisely in those respects in which the developing man differs from the dog he resembles the ape which like man has a spheroidal yelk-sac, and a discoidal, sometimes partially lobed, placenta. So that it is only in quite the latter stages of development that the young human being presents marked differences from the young ape while the latter departs in its development as much from the dog as the man does. This it is seen appears to show the structural unity of man with the rest of the animal world and more closely with the apes.

In all living beings there are several distinct parts set apart to perform particular functions, to operate in particular ways. These are termed "organs" and the living being is termed "organic." And as it is universally characteristic of living beings this term "organic" has been conveniently employed to denote the whole of living nature, the whole of the vegetable and animal world and therefore in the common acceptation of the term "organic nature" is synonymous with living nature.

The matter constituting the living world is identical with that which forms the inorganic world, and the powers or forces which are exerted by living beings are either identical with those which exist in the inorganic world or they are convertible into them; just in the same sense as the research of physical philosophy has shown that heat is convertible into electricity, electricity into magnetism, magnetism into chemical or mechanical force, and any one of those with the other, each being measurable in terms of the other, even so that great law is applicable to the living world. The difference therefore between the forces of the organic and inorganic world arises from the diverse combination and disposition of identical forces, and not from any primary difference.

The animal kingdom consists of seven primary divisions or subkingdoms (not including the microscopic animals); as the Vertebrata, or those distinguished by an internal bony skeleton; the Articulata, or those distinguished by an external bony skeleton composed of joints, as the lobster, centipede, &c., the Annulosa, or the worm tribes; the Insecta, insects; the Mollusca, or soft bodied animals, as shell-fish; the Calenterata or polyps, and the Radiata, including the sexless protozoa, and infusoria and sponges, the lowest forms of animal life. There is a certain unity of structural plan peculiar to

each of these sub-kingdoms which distinguishes and characterizes all its tribes, and by which it differs from all the other sub-kingdoms and their tribes.

Now it is found that distinct as these plans of structure are, every animal begins its existence with one and the same primitive form, namely, that of the egg, consisting, as we have seen, of an introgenous substance having a small particle or nucleus in its centre. Furthermore, the early changes of each are substantially the same, and it is in this consists the true unity of organization of the whole animal kingdom which has been imagined for centuries, but has been left to the present time to be demonstrated by the careful study of development. Moreover, it is now proved that the whole of the organic world is reducible to one primitive condition of form; that every plant begins its existence under the same form, that is to say, in that of a cell, the particle of introgenous matter having substantially the same conditions as the animal ovule. So that if you trace back to its germ any plant or animal you choose to name you shall find each and all of them to commence their existence in forms essentially similar to each other, and further, that the first processes of growth and many of the subsequent modifications are essentially the same in principle in almost all.

Finally, we may say that there is nothing yet known either historically or experimentally concerning the origin of living beings, or, in other words, concerning an origin of organic nature or organic life other than as we see now and which has been in these pages to some extent depicted and described.

The mode of perpetuation and modifications of form of living beings is therefore what engages the attention of naturalists and modern evolutionists rather than any question of origin. And we, for our part, while allowing that certain slight changes of form may have, in the course of time and from external conditions, taken place in species (for it may not appear improbable that some slight changes of form may take place in species, each returning after a cycle to its typical form again) yet we see no ground for justifying any theory which would derive all organic beings, animal and vegetable, from one primitive life-cell, or which would produce from species, entirely distinct species in any length of time.

Man stands at the head of the animal creation, and for all we know to the contrary, has ever occupied that place. He has ever in general propagated with his own species. This is illustrated by the fact that in all countries which have been discovered no order of animals exists as indicating a cross species between man and the lower orders of animals. The different species of apes, monkeys,

baboons etc., are distinct from man, and appear always to have been so. They differ from him not only in their appearance and habits, but in their bodily conformation also. Twenty-four alterations of structure, at least, would be required for the transmutation of the body of a gorilla into that of a man, all these in the physical organization alone. And the difference in the mental capacity is still greater; for while the average capacity of the Anglo-Saxon skull, which perhaps may be taken as nearly the average capacity of all human skulls, is 96 cubic inches; that of the gorilla is only 34½; that of the Chimpanzee 27½; and that of the Orang 26 cubic inches. These are the highest of the ape tribes; they come nearest to man in the scale of being; and yet, what a gulf separates those orders from mankind! But what eminently distinguishes man from all other orders of animals, is the capacity of mind which he possesses, the power of reasoning, which indeed gives rise to the power of speech; and without which speech, properly so called, could not exist. Some have ventured to enquire why the apes do not speak (for it may be remembered that no animal but man exercises the faculty of speech); as, say they, the organ of speech of the ape resembles that of man. Such enquirers do not consider that organs of speech must act according to the mind which employs them. Hence while man uses a glottis or vocal chords, which act in accordance with his reason, or logos, to form a language, the apes can employ but the same organs to produce a bark or a yell. Human beings in all parts of the world, however unenlightened they may be, know, as it were instinctively, the relation in which they stand to the lower orders of animals; and even in the regions of Africa, far away from the civilization and unacquainted with the ideas and habits of the white races, they preserve their place, and regard the apes with superstitious horror! Even in the earliest periods of our race of which geology thus far furnishes us any information we find its members displaying a certain ingenuity and tact in the making of tomahawks, arrows, etc., and for all we know to the contrary, they may have displayed great ingenuity in the construction of innumerable other things, every trace of which has ages since passed away. There was doubtless in all ages a difference of degree existing in respect to civilization, as there is now, among the different tribes of mankind. And even in the earlier geological times, we find them exercising the care of burying their dead or of burning them, which will, in the main, account for the fossil remains of man not being found strewed as broadcast as those of the lower land animals. Man has always exercised a care over the dead of his own species which none of the lower animals were capable of exercising. This of itself is enough to show that he

always possessed and exercised the power of reason and speech.* Would that he had always used this faculty aright! Well and happy would it thus have been for him! Even the Quadrumana, or ape-tribe, which come nearest to man in the scale of being, do not evince to us that they have any conception of care for their dead. All the care which they exhibit and which they have in common with all other animals, even the lowest, is for their young, and to supply their own physical wants. All the Indian tribes of North and South America, even in their most wild and savage state, have always, since the white men have become acquainted with them, given evidence of deep affection and care for their dead; and some of these tribes are accustomed to come periodically, bringing offerings and tears to their tombs! And every human being possessing the ordinary mental faculties of a human being, of whatever nation or language, you may meet with, will, if you find him in circumstances favorable for the intercommunication of ideas, give unmistakeable evidence of his possessing reason, and of his having some thoughts as to right and wrong much as you have yourself. How long ere human beings exercise such kindness towards each other as their kindred relation calls for? How long before all men will cultivate and exercise only the principle of benevolence, to be good and to do good? When that time has come, they will know what we say to be true, and each one will realize for one's self the application of the name which has long ago been given to the Eternal Father.

The consideration of the great development of language among the civilized nations, ancient as well as modern, would go far to show man's true position in the scale of creation. This is especially so in the case of the Greek language, which is constructed with such mathematical precision, and which has been cultivated after that manner in such an early age. Also, in the Latin, which approaches the Greek in the beauty and the complexity of its construction, though not in the smoothness of its sound, man's mental superiority over the lower animals is no less apparent. Even in the construction of these two languages we see a very remarkable degree of skill displayed, and in their use during the historic ages, a wonderful development of reasoning power. But because the language of a nation does not display a great number of words, this is not a sufficient indication that it is not ingeniously constructed. Succinctness of expression gives power to language. The language of almost all the Indian tribes of America, South and North, including the Esquimaux, though differing much from each other as to root and sound, are all constructed upon the polysinthetic principle; that is, root is so added on to root, that quite a number of ideas may be expressed by one complex word. And these peoples do not give much attention to the niceties and the mathematical complexities of mood and tense, and case. For instance, one of the tribes, the Algonquins, are said by a missionary who has been amongst them, to have expressed the following number of ideas by one word, nadholineen: "Come and fetch us across the river in a canoe." But in some cases they express by very long words objects which in English are expressed by monosyllables. In the Pawnee language the word for day is shakoorooeeshairet, and for devil it is tsaheekshkakooraiwah. Their words, however, for these common objects may, for what we know, represent to their mind, complex ideas, i. e., may represent each a combination of many simple ideas. The Greek language, both as to its alphabet and construction, must have been in use in very early times. This is evident from the perfection it displayed, as compared with other ancient languages, even so early as the age of Homer, the 12th century B. C. It then had its several dialects of

A CONTEMPLATION OF OTHER SCENES AND OBJECTS OF NATURE INTENDED TO FURTHER ENLIGHTEN US AND TO EXALT OUR CONCEPTIONS OF THE CHARACTER OF THE DEITY, UNDER WHICH HEAD IS ILLUSTRATED THE INFINITY OF IDEAS WHICH EXISTED ETERNALLY IN THE CREATOR'S MIND FROM A CONSIDERATION OF THE DIVERSIFIED DISPLAY OF CREATED OBJECTS IN THE ANIMAL, VEGETABLE, AND MINERAL KINGDOMS OF THE EARTH.

All the works of nature speak of their Author in silent but emphatic language, and declare His wonderful perfections. But, although there is no speech or language in which the voice of Deity is not heard, yet how gross and inadequate are the conceptions generally entertained of that Being in whom we live and move and by whose power all events in nature are directed and controlled. The benevolence of the Deity is seen not only in the sunshine and the shower, but in the ample provision which is made on the earth for the wants of man and all other animals. Some fifty years ago it had been ascertained that more than 60,000 species of animals inhabited the air, the earth, and the waters; and it was supposed that many more thousand species existed, which had not, up to that time, come within the observation of the naturalist. Since then, naturalists may, by their discoveries, have added largely to the number of known species, and they may still go on discovering, and be able only to make near approaches to the real number existing in the earth and in connection with it, a number which it does not seem they will ever be able definitely to learn. On the earth's surface there is not a patch of ground or a portion of water, a single shrub, tree, herb or plant, nor a single leaf of a tree or flower, but what teems with animated or sensitive beings. What countless millions even of visible animals have their dwellings in caves, in the clefts of rocks, in the bark of trees, in ditches and fences, in marshes, in the forests, the mountains and the valleys. What innumerable shoals of fishes, of various sizes and appearances,

---

the Doric, Ionic, Æolic, and Attic, which all after yielded in perfection to the perfected Attic. The Latin also, which, as the Attic, was the perfected product of many Italian dialects, must have had a very early origin as to its characters and construction since that we meet with the construction of mood, and tense, and case, even in the earliest authors of this language, as in the Greek. The characters and constructions of these two languages are old, and the thought of their authors is old, and indicative of true human feeling.

inhabit the ocean and sport in the seas and rivers. What millions on millions of birds and flying insects, in endless variety, wing their flight through the atmosphere above and around us! Besides these there are innumerable multitudes of animated beings, invisible to the unassisted eye, and dispersed through every region of the earth, air, and seas. In a small stagnant pool which, in summer, appears sheeted over with a green scum, there are more microscopic animalcules than would outnumber all the human inhabitants of the earth. How immensely great then must be the collective number of these creatures throughout all the regions of the earth and atmosphere! It utterly surpasses the limits of our conceptions. Now, it is a fact that, from the elephant to the mite, from the whale to the clam, and from the ostrich to the gnat or the microscopic animalcule, no animal can subsist without nourishment. The species, too, require various kinds of food; some live on grass, some on shrubs, some on flowers, and some on trees; some feed only on the roots of vegetables, some on the stalks or stems, some on the leaves, some on the fruit, some on the seed, some on the whole plant, and some, as we have shown before from Linnæus, with respect to quadrupeds, prefer one species of grass or vegetables, some another. Yet such is the boundless munificence of the Creator, that all these countless myriads of sentient beings are amply provided for in nature. The eyes of all these sentient beings look unto the Creator, and he openeth His hand, and satisfieth the desire of every living being. The world is so arranged that every place affords the proper food for all the living creatures with which it is inhabited. They are furnished with every organ and apparatus for the gathering, preparing, and digesting of their food, and are endowed with admirable sagacity in finding out and providing their nourishment, and enabling them to distinguish between what is salutary and what is pernicious. In the exercise of these faculties, and in all their motions, they appear to enjoy a happiness suitable to their nature. The young of all animals in the exercise of their incipient faculties, the fishes sporting in the water, the birds skimming through the air or warbling in the thickets, the gamesome cattle browsing in the pastures, the wild beasts bounding through the forests, the insects gliding through the air and crawling along the ground, and even the earth-worms wriggling in the dust, all proclaim by the vivacity of their movements and their various tones and gesticulations, that they are not without enjoyment in the exercise of their powers. In this boundless scene of animate existence we see a striking illustration of the truth of the statements: "Jehovah is good to all," "the earth is full of His riches," and "His tender mercies are over all His works." Although such dis-

plays of adaptation in animate creatures to their circumstances, and in the arrangements for their wants and enjoyments, are obvious evidences of benevolence in the Deity to a reflecting mind, yet they are almost entirely overlooked by the bulk of mankind, owing to their ignorance of the facts of natural history, and the inconsiderateness with which they are accustomed to view the objects of the visible creation. Hence they are incapable of appreciating the beneficence of the character of the Deity, and the wealth of his munificence, and unable to feel those emotions of admiration which an enlightened contemplation of the scenes of nature are calculated to inspire.

As the conceptions existing in the mind of an artificer are known by the work he produces, or the operations he performs, so the ideas which have eternally * existed in the Creator's mind may be known from the objects He creates, the events He brings about, and the operations He is incessantly conducting. The production of a single object is an exhibition of the idea existing in the creative mind of which it is a copy. The production of a second or third object exactly resembling the first would only exhibit the same idea a second or a third time without disclosing anything new concerning the producer; and, consequently, our conceptions of His intelligence would not be enlarged though millions of such objects were presented to our view, just as a hundred pairs of spectacles or a hundred microscopes of exactly the same pattern, constructed by the same artist, give us no higher idea of his skill and ingenuity than the construction of one. But every variety in the objects and arrangements of nature exhibits a new discovery of the contrivances, the intelligence, and the multiciplicity of ideas of the Creator; and these varieties, as the Creator, are infinite.

* That this infinity of ideas always existed in the Creator's mind is necessarily certain from the fact of the infinite and eternal omnipresence of the Creator, which necessitates that these ideas could not arise to him from any other source than from himself. The Creator alone is eternal; all created things have a beginning and an end in time and space. We may also understand the Creator to be personal and absolute as well as infinite, although we cannot conceive of him as either of these or as anything. It cannot be said that the idea or ideas implied in the created thing arose to the Creator from the thing created any more than a picture can exist without an original existing of which it is a copy. All created things are merely copies of ideas pre-existing in the Creator's mind. This general idea of creating things refers to all the objects created on or in the earth, or in any of the heavenly bodies, or in any part of space. That the earth considered as a globe made up of solid, liquid and æriform substances, has a limit in every direction in space cannot well be doubted; and thus it is doubtless with each of the heavenly bodies, for the earth and each of them appear to perform motions and revolutions in space around each other. It is in accordance with our experience and knowledge that all things created in the animal and vegetable world have a beginning and an end in time and space; and also in the mineral world, even in the bowels of the earth, we find change taking place, one form or species of matter frequently taking the place of another in mineral existences, and to the extent that this change takes place in the mineral department of existence, to this extent there is mineral creation. Indeed the whole earth may be said to be continually in a state of change, and so it may be said to be an object of creation. So evidently it is with each of the other celestial bodies.

It is proper here to state that the objects which man produces are all imitations of objects already existing in nature, and that man cannot have any *true* conceptions but what are of existing things. The word idea means literally an image or picture of anything; and as everybody knows there cannot be a true image or picture unless there exists a thing of which the image or picture is a representation, so neither can there be a true idea conceived in the mind unless a thing exists in the universe of which it is a representation. This will at once satisfy any thinking mind that a real world exists external to one's self in opposition to any theory which will represent the world as consisting merely of our conceptions.

We remember once being in company with some rural friends, when Bishop Berkeley's theory was mentioned, a theory which is understood to demonstrate that no external world exists, and that when one sees with his eyes any object, for example a tree, he does not see the tree but only a picture of it on his retina. This illustration of the theory being made, one of the company expressed himself as follows: "Well, I guess, if he bumped his head against it, he would find out whether it was a tree or only an idea." Even so the readers may always feel assured that a world exists external to themselves in which they as creatures live and move. And each human being has his own ideas of and concerning the world. This external world you realize in every man and every object you behold. The martyr at the stake, or on the cross, realizes it in those who are cruelly depriving him of life. The convicted person in the court or on the scaffold realizes it by all he sees around him. And both opposing parties in the terrible bayonet charge realize mutually this great fact. Let no one by sophistry or plausable talk impose upon you to such a degree as to cause you to believe that a shadow can exist without a substance, or that true ideas can exist in the mind without the real things existing of which they are the pictures, even so the Deity is everywhere present a great reality. You can appreciate his presence and character in all the objects and operations of nature; nor can sophistry or plausable words, spun out to any extent, make the Deity other than that great and omnipresent reality the Deity is. You should ever remember that your duty is to be good and to do good before him, worshipping him who is invisible alone in spirit and in truth.

The young (yea, and the old) should always remember, that while studying, either from books or from nature, it is very important to acquire full and distinct ideas in their mind of the subject of their

---

* Ideas which do not represent real things are fictitious, creations of the imagination.

study; for as true ideas cannot exist without the real things existing, of which they are but the pictures or shadows, even so a proper and well connected discourse on any subject cannot be produced unless the distinct ideas exist in the mind before, of which the discourse is but a representation. Ideas are representations of things, and words are representations of ideas; and words spoken inconsiderately, and at random, which are not the representations of true and well defined ideas, are as chaff blown away by the wind; they produce no proper effect, and are better left unspoken. The young and old should endeavor to have full, and true, and well defined ideas of things, and having these they will acquire, with comparative ease, words to express them. First have full and accurate ideas on any subject, and a sufficiency of words to express those ideas will naturally and easily follow.

Now in the universe, we find all things constructed and arranged on the plan of boundless variety. In the animal kingdom, as we have already remarked, there had been ascertained some fifty years ago, sixty thousand different species of animate beings. These were enumerated as follows: Six hundred species of mamalia, or animals that suckle their young, most of which are quadrupeds; four thousand species of birds; three thousand species of fishes; seven hundred species of reptiles, and forty-four thousand species of insects · about three thousand species of shell-fish; and besides these there were perhaps one hundred thousand species of animalcules invisible to the naked eye, which the microscope had brought to view, and new species daily discovering in consequence of the zeal and industry of the lovers of Natural History. We cannot set any definite limits to the number of animate beings existing in the earth, which has never yet been thoroughly explored, and never can be.

We may next consider that the organized structure of each species consists of an immense number of parts, and that all the species are endlessly diversified, differing from each other in their forms, organs, members, faculties, and motions. They are of all shapes and sizes, from the microscopic animalculum, ten thousand times less than a mite, to the elephant and the whale. They are different in regard to the construction of their sensitive organs. In regard to the eye, some have that organ placed in front so as to look directly forward, as in man. The human eye is so constructed by means of muscular bands attached to it as to be able to move up or down, to the right side or to the left, without the head being moved. This, you see, is a very convenient arrangement indicating benevolent design in the Creator. Other animals, as birds, deer, hares, and conies, have this organ so placed toward the side of the head as to take in nearly a whole hem

isphere. This is a convenient arrangement for them, as it enables them to see their pursuers behind them, without turning the head. Some have this organ fixed, and others moveable: some have two globes or balls, as man and quadrupeds; some have four, as snails, which are fixed in their horns; some have eight, set like a locket of diamonds, as spiders; some have several hundreds, as flies and beetles, and others have over twenty thousand, as the dragon-fly, and several species of butterflies.*

In regard to the ear, some have it large erect and open, as in man and the hare, so as to hear the least noise and avoid danger; in some it is covered to keep out noxious bodies; and in others, as the mole, it is lodged deep and backward in the head, fenced and guarded from external injuries. With regard to their clothing, some have their bodies covered with hair, as quadrupeds; some with feathers, as birds; some with scales as fishes; some with shells, as the tortoise; some only with skin, as some serpents and eels: some with stout

* The eyes of beetles, silk-worms, flies, and several other kinds of insects are among the most admirable productions of the Creator. On the head of a fly are two large protuberances corresponding to the two eyes in other animals, one on each side; these constitute its organs of vision. The whole surface of these protuberances is covered with a multitude of small hemispheres, placed with the greatest regularity in rows, crossing each other in a kind of lattice work. These little hemispheres have each a minute, transparent, convex lens in the middle, each of which has a distinct branch of the optic nerve ministering to it; so that the different lenses may be considered as so many distinct eyes; Mr. Leeuwenhoek counted 6236 in the two eyes of a silk-worm, when in its fly-state; 3180 in each eye of a beetle; and 8000 in the two eyes of the common fly. Mr. Hooke reckoned 14,000 in the eyes of a drone-fly; and in one of the eyes of a dragon-fly there have been reckoned 13,500 of these lenses, and consequently in both eyes, 27,000, every one of which is capable of forming a distinct image of any object, in the same manner as a common convex glass; so that there are 27,000 images formed on the retina of this little animal. Mr. Leeuwenhoek, having prepared the eye of a fly for that purpose placed it a little farther from his microscope than when he would examine an object, so as to have a proper focal distance between it and the lens of his microscope; and then looked through both, in the manner of a telescope, at the steeple of a church, which was 299 feet high, and 750 feet distant, and could plainly see through every little lens the whole steeple, inverted, though not larger than the point of a fine needle; and then directing it to a neighbouring house saw through many of the little hemispheres, not only the front of the house, but also the doors and windows, and could discover distinctly whether the doors were open or shut. Such an exquisite piece of mechanism transcends all human comprehension.

The eyes of a fly are very large, when compared with the size of the head. If one of these compound eyes be examined under a glass with a linear, magnifying power of 100, the organ will be found to consist of many thousand tubes, each fixed in a six-sided case. Every one of these eyelets appears to be a perfect, simple eye, resembling in all essentials that of a man. Dr. Hooke gave the number of eyelets in each eye at 7,000, and Dr. Carpenter estimates them at 4,000. Thus at the lowest computation, a common house-fly possesses 8000 separate organs of vision.

The eyes of all insects are compound. The eye of a butter-fly contains in reality about 17,000 eyelets, giving to this gaudy insect 34,000 in all. Each eyelet is a perfect organ in itself, hexagonal, or six-sided, in shape, so that the whole collection resembles the cells in a large honeycomb. Some of these insects have also two simple eyes on the top of the head, so that we must confess ourselves to be altogether inferior in the matter of eyes to the gaudy butterfly. It must not be supposed that when a butterfly looks upon a female of his own species he sees 34,000 fluttering beauties before him. As the two human eyes do not double objects, so the numerous lenses of the butterfly may combine to form but one image.

and firm armor, as the rhinoceros and crocodile ; and others with prickles, as the hedgehog and porcupine ; all nicely adapted to the nature of the animal, and the element in which it lives. These coverings too are adorned with diversified beauties, as appears in the plumage of birds, the feathers of the peacock, the scales of fishes, the hair of quadrupeds, and the variegated polish and coloring of the tropical shell-fish, beauties, which, in respect of symmetry, polish, texture, variety and exquisite coloring, defeat every attempt of human art to imitate or copy. In regard to respiration, some breathe through the mouth by means of lungs, as men and quadrupeds: some by means of gills, as fishes ; and some, during the early part of their life, as the frog, breathe by means of gills, and in a more advanced stage of it they acquire lungs and breathe by means of them: and some breathe by organs placed in other parts of their bodies, as insects. In regard to the circulation of the blood, some have but one ventricle in the heart, some two, and others three. In some animals, as man, the heart propels the blood to the remotest part of the system: in some it throws it only into the respiratory organs ; in others the blood is carried from the respiratory organs, by means of the veins, to another heart, and this second heart distributes the blood by the channels of its arteries to the several parts.

In many insects a number of hearts are placed at intervals along the circulating course, and each renews the impulse of the former, so that a continual circulation is kept up. In regard to the bodily movements, some are endowed with quick motions, others slow ; some walk on two legs, as fowls ; some on four, as dogs, some on eight, as caterpillars ; some on a hundred, as scolopendra, some on fifteen hundred and twenty feet, as one species of starfish ; and some on two thousand feet, as certain specimens of echinus ; (It is mentioned by Lyonet that these echini have 1300 horns, which they protrude and draw in at pleasure.) Some glide along with a sinuous motion on scales, as snakes and serpents ; some skim through the air, one species on two wings, another on four ; and some convey themselves in speed and safety by means of their webs, as spiders ; while others glide with agility through the waters by the instrumentality of their tails and fins. Some animals are distinguished for having an internal bony skeleton, as man, beasts, birds, and fishes, thence called vertebrate ; some for having an external bony skeleton jointed at intervals as the lobster and insects, and thence called articulate ; some for living in horny houses, as shell-fish, turtles, and land-snails, and thence called crustaceous, and molluscous. Some live fixed like plants at the bottom of the sea, as the hydra. This animal, for example, produces young not only from eggs in the ordi-

nary way, but also by putting forth buds from its sides, which while attached to the parent develop mouths and arms, and then become separated; and having become fixed in their turn they live for themselves. The animals called crinoids grow like plants in the seas of the Tropics. The sponge also is a plant animal which lives fixed at the bottom of the sea. These sponge-plant animals, are of various forms, some of them corresponding to our moorland moss-tufts; some to the most elegant types of flower form, and some resembling in minature the great candelabra-formed berus of the Gila regions. Most people have seen and used the sponge sold in our stores, which is merely part of the skeleton of these plant-animals. The great coral islands of the Pacific Ocean are merely aggregations of animal developments. The coral is the solid parts of the animal, composed of carbonate of lime, and corresponds, as does the sponge, to the bony skeleton in higher animals. Corals are of different forms, sometimes having the form of trees and shrubs, and sometimes a round form, as the brain stone. You have therefore in these plant-animals, which are developed in great variety and to vast extent in the seas and oceans the connecting link between the animal and vegetable and mineral kingdoms.

But it would require volumes to enumerate and explain all the varieties and peculiarities which distinguish the different species of animated beings. Besides the varieties which distinguish the species from each other, there are not, perhaps, of all the hundreds of millions of individuals which compose any one species, two individuals exactly alike in every point of view in which they may be contemplated. As an example of the numerous parts and functions which enter into the construction of an animal frame, we may state that in the human body there are about 254 bones, each of them having about forty different intentions, or adaptations; and 443 muscles, each having ten several intentions, so that the system of bones and muscles alone comprises about 14,620 varieties or different scopes and intentions. But, besides the bones and muscles, there are hundreds of tendons and ligaments for the purpose of connecting them together; hundreds of nerves ramified over the whole body to convey sensation to all its parts. The nerves have their centres in the brain and spinal marrow, whence ramifications proceed to all parts of the body. Nerve is derived from the Latin, and means cord; and the nerves, though infinitely fine cords, may, for the sake of illustratration, be compared to telegraph-wires, which communicate their messages *instantly* to their centres, and thence to all parts of the system. The human being has five senses: sight, hearing, touch or feeling, taste and smell, each of these has its peculiar set of nerves;

and not only that, but the nerves are so closely reticulated over the whole body that you cannot prick it in any place with the point of the finest needle without affecting numbers of them. The senses, then, are the channels through which the sensitive or animate being communicates with the external world; by which the rational being knows that it exists and that he exists. There are thousands of arteries to convey the blood to the remotest extremities of the system, and thousands of veins to bring it again to the heart; thousands of lacteal and lymphatic vessels to absorb nutriment from the food; thousands of glands to secrete humors from the blood, and of emunctories to throw them off from the system; and besides many other parts of this variegated system with which we are acquainted, there are more than sixteen hundred millions of membraneous cells or vesicles, connected with the lungs; more than two hundred thousand millions of pores in the skin, through which the perspiration is incessantly flowing; and above a thousand millions of scales which according to Leeuwenhoek, Baker, and others, compose the cuticle of outer covering of the body. We have also to take into account the compound organs of life, the numerous parts of which they consist, and the diversified functions they perform; such as the brain with its infinite number of fibres and numerous functions; the heart with its ventricles and auricles; the stomach, with its muscular coats and juices; the liver, with its lobes and glands; the spleen, with its infinity of cells and membranes; the pancreas, with its juice and numerous glands; the kidneys, with their fine capillary tubes; the intestines with all their windings and convolutions; the organs of sense, with their multifarious connections; the messentary, the gall-bladder, the uretus, the pylorus, the duodenum, the blood, the bile, the lymph, the saliva, the chyle, the hair, the nails, and the numerous other parts and substances, every one of which has diversified functions to perform.

We may also take into consideration the number of ideas included in the connection and arrangement of all these parts, and of the manner in which they are compacted into one system of small dimensions so as to allow free scope for all the intended functions. If then, for the sake of illustration, we were to suppose, in addition to the 14,620 adaptations of the bones and muscles, as stated above, that there are 10,000 veins, great and small, 10,000 arteries, 10,000 nerves, 1,000 ligaments, 4,000 lacteals and lymphatics, 100,000 glands, 1,600,000,000 vesicles in the lungs, 1,000,000,000 scales, and 200,000,000,000 pores, the amount would be 202,600,149,460 different parts and adaptations in the human body; and if all the other species were supposed to consist of a similar number of parts, though differently

organized, this number multiplied by 300,000, the supposed number of species, the product would amount to 60,780,044,838,000,000, or above sixty thousand billions, the number of distinct ideas, conceptions, or contrivances in relation to the animal world, a number of which we can have no adequate conception, and to our minds, seems to approximate to infinity; but the calculation is merely a rude approximation, and may serve to convey some idea of the endless multiplicity of conceptions which pervade the Eternal mind.

That many other tribes of animate beings have an organization no less complicated and diversified than that of man, will appear from the following statement of M. Lyonet. This celebrated naturalist wrote a treatise upon a single insect, the cossus caterpillar, which lives on the leaves of the willow, in which he has shown from the anatomy of that animal, that its structure is almost as complicated as that of the human body, and many of the parts which enter into its organization even more numerous. He has found it necessary to employ twenty figures to explain the structure of the head, which contains 228 different muscles. There are 1647 muscles in the body, and 2066 in the intestinal tube, making in all 3713 muscles, or nearly nine times the number of muscles in the human body. There are 94 principal nerves, which divide into innumerable ramifications. There are two large tracheal arteries, one at the right and the other at the left side of the insect, each of them communicating with the air by means of nine spiracula. Round each spiraculum the trachea pushes forth a great number of branches, which are again divided into smaller ones, and these subdivided and spread through the whole body of the caterpillar; they are naturally of a silver color, and make a beautiful appearance. The principal tracheal vessels divide into 1326 different branches. All this complication of delicate mechanism, with numerous other parts and organs, are compressed into a body only two inches in length.

If we direct our attention to the vegetable kingdom, we may contemplate a scene no less variegated and astonishing, than what appears in the animal world. There have already been discovered about ninety thousand species of plants, specimens of the greater part of which have been preserved in the museum of Natural History at Paris. But it is said by naturalists that the actual number in the earth and waters cannot be reckoned at less than four or five hundred thousand species; indeed the truth is that as in the animal kingdom, they can put no definitive limits to the number, for a great part of the earth they can never explore.

The observer who takes a survey of the various members of the vegetable kingdom becomes cognizant of at least one prominent dis-

tinction between them. He soon perceives that while certain vegetables have flowers, others have none; or, perhaps, more correctly speaking, if the second division really possess flowers they are imperceptible. This distinction was first taken as a basis of classification by Linnæus, the Swedish naturalist; and to this extent the classification adopted by that great philosopher was strictly natural; beyond this his classification was artificial. Now taking advantage of this distinction, Linnæus termed the evident-flowering plants *phænogamous*, from a Greek word signifying *to appear;* and he designated the non-flowering or more correctly speaking the non-evident-flowering plants *Cryptogamic*, from a Greek word signifying *concealed*. In making this division of plants into flowering and non-flowering, one must greatly expand his common notions of a flower, and not restrict the appellation to those pretty floral ornaments, which become objects of attraction, and of which bouquets are made. On the contrary he must admit to the right of being regarded as a flower any floral part, however small, even though a miscrocope should prove necessary for its discovery. Thus, in common language we do not usually speak of the oak, the ash, the beech, the elm, etc., as being flower-bearing trees; but they are, nevertheless, and consequently belong to the first grand division of flowering, or phænogamous, plants. The reader may remember as a rule, to which there are no exceptions, that every member of the vegetable world which bears a fruit, and consequently seeds, belongs to the phænogamous division. By following the indications of this rule, we restrict the cryptogamic, or non-flowering plants, to the seemingly narrow limits of ferns, mushrooms, mosses, and a few others, all of which are devoid of seeds, properly so called, but are furnished with a substitute for seeds termed *sporules* or *spores*. Sporules, then, are, so to speak, the seeds of flowerless and, therefore, seedless plants. We have before spoken of the vegetable kingdom as being divided into the two great branches of exogenous and endogenous plants. We may here state, however, that these two branches are included within the one great division of flowering plants, and have nothing to do with the non-flowering division, which is itself confined to narrow limits of the lowest species of plants.

All plants, most probably, certainly all flowering plants, possess sexes. The flower and its appendages are the reproductive organs of the plants. Without flowers there could be no fruit; without fruit there could be no seed; and without seed, properly so called, by far the greater number of vegetables could not be multiplied. Both sexes, the male organ called stamen, upon which the pollen or fecundating dust is produced, and the female organ called pistil, in

which the fertilizing takes places, are usually contained in the same plant, in the same flower of the plant. Occasionally, however, the two sexes are on different flowers of the same plant, and sometimes on different plants. We may, therefore, properly say that the greater number of flowers contain both sexes; but occasionally, on some plants, the sexes have flowers, each sex to itself; and occasionally again the males monopolize all the flowers on one plant, and the females all the flowers on another. When the two sexes reside in two sets of flowers on the same plant, then such a plant is said to be *monœcious*, signifying "one house;" the plant, we suppose, being regarded as a house, and the flowers as chambers in the same, in which the ladies and gentlemen dwell. When, however, the males all reside in the flowers of one plant, and the females in the flowers of another, then such plants are said to be *diœcious*, or "two-housed," the reason of which is obvious. The seeds or eggs of the plants are fertilized by the pollen, a yellowish powder, from the stamen, falling on the top of the pistil, causing it to expand, and finding its way into the ovary or seed-case, situated at the bottom of the pistil; and so the seeds are fertilized and prepared to produce when placed in proper circumstances.

The function of seeds in the flowerless plants is, as we have said, performed by spores or sporules, from σπόρος, the Greek word for scattered seeds. This class of plants is very small when compared with the flowering; and the spores are prepared for the most part in little receptacles called sporanges or theca; from whence, when ripe, they are scattered about by the winds; the old plants dying, new ones spring up from the spores to replace them. The best known species of this cryptogamic division, are the mosses, lichens, ferns, and fungi. The fungi are said by naturalists to be a mass of reproductive matter in themselves. In these non-flowering species may be recognized the lowest in the scale of plants; just as we have seen sponges, corals, etc., to be the lowest in the scale of animals. Do not the fungi, sponges, etc., of the two kingdoms bear some resemblance to each other?

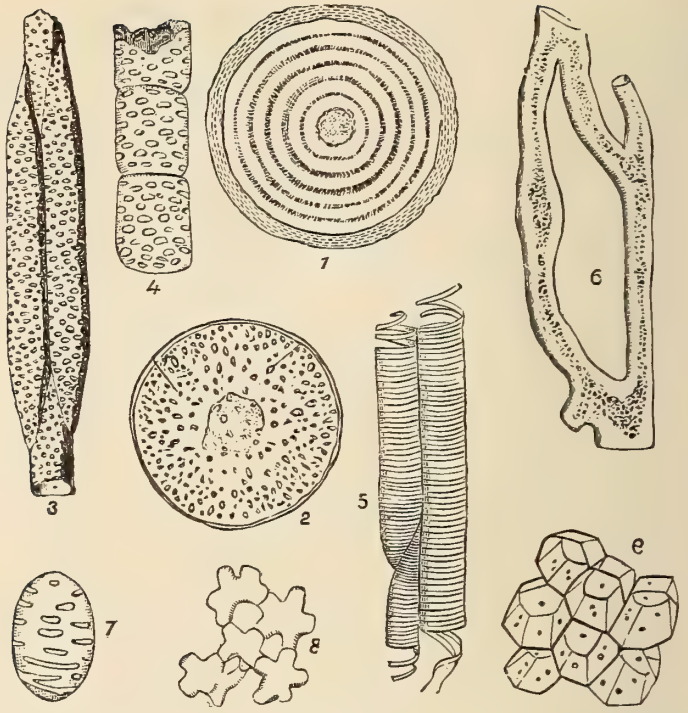
If the reader wishes to know what the sporules are like let him take the well-ripe leaf of a fern (which is not properly a leaf, but a frond); let him turn the under surface of the frond uppermost, and he will see thereon many rows of dark stripes. These are termed *Sporidia*, and they contain the spores or sporules of the plants; which latter may be obtained by opening the sporidia. These sporules, when viewed with the naked eye, look almost like dust; when examined under a microscope, however, their outline is easily recognized. The difference between a sporidium or sporule and a real seed may be

thus explained: a seed has only one part, the embryo or germ, from which the young plant can spring; whereas a sporule does not refuse to sprout from any side which may present itself to the necessary conditions of earth and moisture. Thus, we see the resemblance of these minute seeds to the sponge, which is said to be a vast mass of reproductive matter. Although the sporules are thus easily discernible in the fern tribe, yet they are not found so easily in other members of the cryptogamic division; in various members of which not only does their position vary, but their presence is undiscoverable by any means we possess.

Now the members of the vegetable kingdom are of all sizes, from the invisible forests, which are seen by the aid of the microscope in a piece of moldiness, to the cocoa of Malabar, fifty feet in circumference, the great dragon tree of Teneriffe, which is of such dimensions that ten full grown men joining hand to hand are scarcely sufficient to encircle its base, or the monstrous sequoise trees of California near forty feet in diameter and four hundred feet in height. Each of them great and small, is furnished with a complicated system of vessels for the circulation of its juices, the secretion of its odors, and other important functions, analogous to those in animals. Almost every vegetable consists of a root or an assemblage of roots, each of which is terminated by a number of rootlets or little tufts called spongioles, which absorb the nourishment from the soil; a tuber or bulb, a trunk or stem, branches, leaves, skin, bark, sap-vessels, or system of arteries and veins, glandules for perspiration; flowers made up of sepals, petals, stamens, pistils, farina, ovary or seed-case, seed, fruit, spores or sporules and various other parts; and these are different in their construction and appearance in the different species.

Some increase, or grow, as all exogenous plants, by external depositions of their woody matter, and are distinguished, if cut in horizontal sections of the trunk, by concentric rings increasing in dimensions from the centre to the outside. See, for illustration, a horizontal section of the trunk of the oak or elm. Others, as all endogenous plants, grow by internal depositions of their woody matter, and are distinguished, if cut in horizontal section of their trunk, by the absence of pith and concentric rings; and by the tissue, of which the stem is made up, appearing as long strings of woody fibre, and extending upwards. See, for illustration of this kind, the horizontal section of the palm tree of tropical climates, the sugarcane, the bamboo, and all the grasses.

Some vegetables, as the oak, are distinguished for their strength and hardness; others as the elm and fir, are tall and slender; some



1. Horizontal Section of an Exogen. 2. Horizontal Section of an Endogen. 3. Dotted Vessels of the Clematis. 4. Dotted Vessels of the Melon. 5. Spiral Vessels of the Melons. 6. Lactiferous Vessels of the Celandine. 7. Ovoid Celi. 8. Stelliform Cells. 9. Angular Cells.

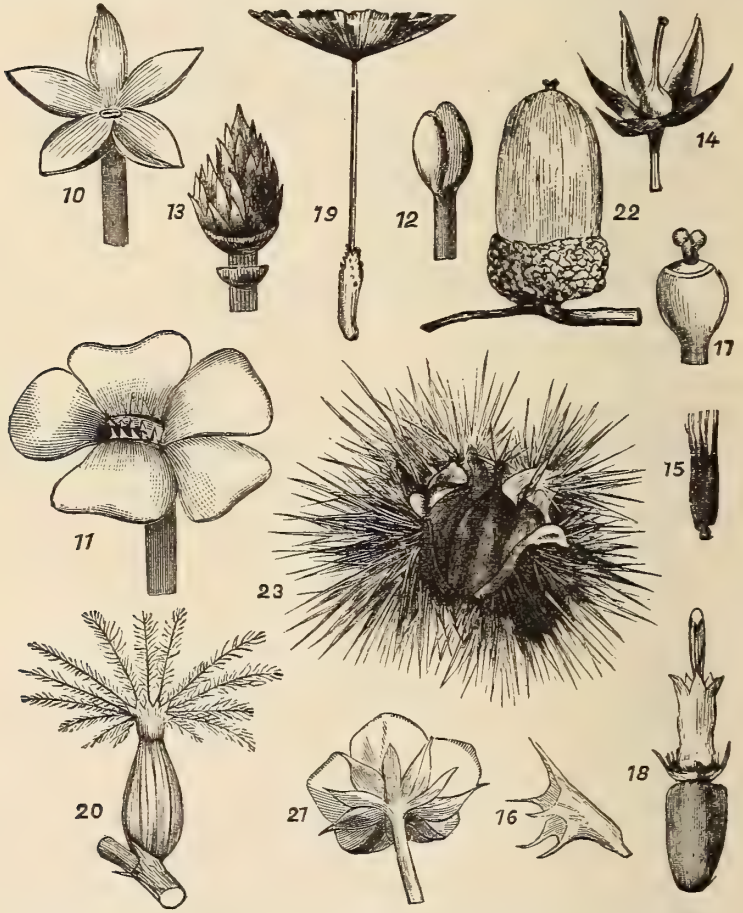
are tall, and tapering upwards to a point, as the cedar; while others never attain to any considerable height, as the thorn-shrub; some have a rough and uneven bark, while others, as the birch, the maple and the poplar, are smooth and fine; some are so slight and delicate, that the least wind may bend them; while others can resist the violence of the strongest blasts; some acquire their full growth in a few years; while others, as the dragon-tree, grow to a prodigious size, and stand the blasts of many centuries; some have their branches close to the trunk; while others, as the banyan tree, shoot them out so as to cover five acres of land, and shelter a thousand men; some have leaves scarcely an inch in length and breadth, while others, as the tallipot of Ceylon, have leaves so large that one of them, it is said, will shelter fifteen or twenty men from the rain; or as some of the water lilies of Central America, whose leaves, being fifteen or eighteen feet in diameter, a man may float on in safety, and whose flowers and ovary are proportionally large. Some drop their leaves in Autumn, and remain for months like blighted trunks; while others, as the hemlock, the pine, and the holly, retain their verdure during the winter.

The variety in the vegetable kingdom as to flowers is apparent even to the most careless observer. Each species of flower differs from another in the form and hues which it exhibits. The carnation differs from the rose, the rose from the tulip, the tulip from the primrose, the auricula from the lily, the lily from the daffodil, the narcissus from the ranunculus, and the butter-cup from the daisy; while at the same time each narcissus, ranunculus, rose or daisy, has its own particular character and beauty; something peculiar to itself, and which distinguishes it from the others. In a bed of ranunculuses or tulips for example, we shall scarcely find two individuals that have precisely the same aspect, or present the same assemblage of colors. Some flowers are of stately appearance and seem to reign over their fellows in the same parterre; others are lowly, and creep along the ground; some exhibit the most dazzling colors; others of less imposing appearance blush almost unseen; some perfume the air with the most delightful fragrance, while others emit an unpleasant odor, and only please the sight with their beautiful tints. And not only do flowers differ in their forms and colors, but there is a great diversity in their perfumes also. The smell of southern wood differs from that of thyme, that of balm from that of peppermint, and that of the primrose from that of the daisy; which indicates a variety in their internal structures and in the juices which circulate within them.

As to the flower it is made up of different parts, as the calyx or under whorl, which is itself made up of several parts, called sepals; and the corolla or upper whorl, which is also made up of several parts, called petals. The calyx and corolla taken together comprise what is called the perianth, or that which surrounds and protects the reproductive part of the flower. It may be called a beautiful painted house, in which the gentlemen and ladies of the flower live. Thus, in the concave space enclosed by the perianth are found the reproductive parts of the plants; the stamens and pistils, or carpels, either or both. At the bottom of the pistil, or carpel, which means the same thing, is situated the ovary, or seed-case; the point in which it terminates above is called the stigma, and the middle part of it, the style. Upon the stigma of the pistil falls the pollen from the stamen, which causes the ovary to expand, the fruit to ripen, and the seed to grow. Thus, while the roots, with their spongioles, are called the nutritive, the flower and its appendages are called the reproductive parts of the vegetable. See annexed figures; also figures on pages 227 and 228.

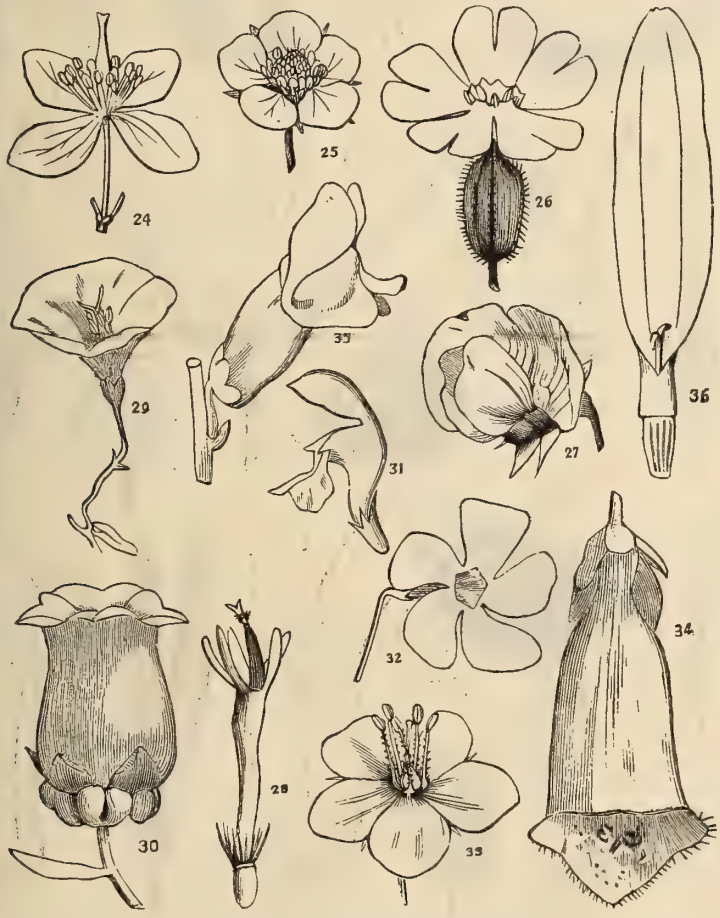
The leaves of all vegetables, like the lungs and skin of the human body, are diversified with a multitude of extremely fine ves-

sels, and an astonishing number of pores. The leaf itself consists of two flattened expansions of the epidermis, or the outer covering, called the cuticle, of the tree, the one above and the other below, enclosing between them nerves and veins, vascular and cellular tissue. The word vascular means consisting of, or containing, vessels; and cellular means consisting of cells. By vascular tissue is meant those little pipes and tubes which run through vegetables, just like arteries and veins through animal bodies, and which serve the purpose of conveying juices from one part of the plant to another. In plants, those pipes or tubes are so exceedingly small, that their tubular character is only recognized by the aid of a microscope or powerful



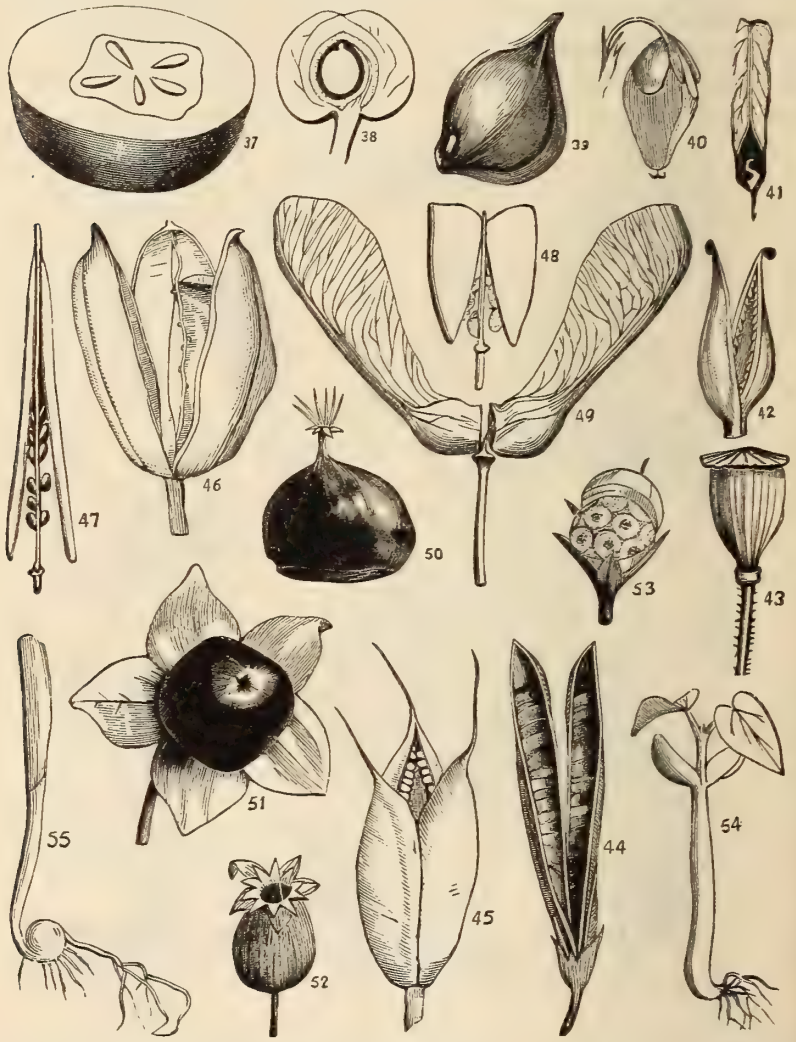
10. Calyx of Ranunculus. 11. Corolla of Ranunculus. 12. Stamen of Ranunculus. 13. Carpels of Ranunculus. 14. Quinquepartite Calyx of the Pimpernel. 15. Quinquefid Calyx of the Gentian. 16. Irregular Calyx of the Dead Nettle. 17. Calyx of the Madder. 18. Adherent Calyx of the Sunflower. 19. Calyx of the Dandelion. 20. Calyx of the Centranthus. 21. Calycule of the Strawberry. 22. Acorn and Cup. 23. Involucrum of the Chestnut.

lens, but their presence may be recognized in general by the naked eye. Cellular tissue is, as its name indicates, an assemblage of little cells, the natural form of which is spheroidal or oval; but more frequently this form is modified from various causes, usually the mutual pressure of the cells against each other. Thus, the pith of trees, a portion of which is made up of cellular tissue, if examined under the microscope, will be found to be composed of cells, having the form of honeycomb cells, that is, hexagonal. Occasionally the cells assume a stellate or star-like form, which may be seen in a section of the common bean, if examined under the microscope.



24. Cruciform Corolla of the Celandine. 25. Rosaceous Corolla of the Strawberry. 26. Caryophylate Corolla of the Lychnis. 27. Papillionaceous Corolla of the Pea. 28. Tubular Corolla of the Corn Centaury. 29. Infundibuliform Corolla of the Bindweed. 30. Campanulate Corolla of the Pampanula. 31. Labiate Corolla of the Dead Nettle. 32. Hypocrateriform Corolla of the Periwinkle. 33. Rotate Corolla of the Pimpernel. 36. Anomalous Corolla of the Foxglove. 35. Personate Corolla of the Snapdragon. 36. Ligulate Corolla of the Chrysanthemum.

Usually those vegetable cells are so very small that a microscope or a powerful lens is necessary for observing them. In certain vegetables, however, they are of such dimensions as to admit of being readily seen by the naked eye. For example, if the fruit of an orange be cut or pulled asunder, the cells will be readily apparent. And not only do the cells of this cellular tissue admit of being altered in form, but occasionally they give rise to parts in the vegetable



37. Pome. 38. Drupe. 39. Achænium of the Ranunculus. 40. Caryopsis of the Buckwheat. 41. Follicle of the Columbine. 42. Capsule of the Gentian. 43. Capsule of the Corn Poppy. 44. Legume of the Lotus. 45. Capsule of the Colchicum. 46. Capsule of the Iris. 47. Siliqua of the Celandine. 48. Silicule of the Mustard Plant. 49. Samara of the Maple. 50. Nut of the Chestnut. 51. Berry of the Deadly Nightshade. 52. Capsule of the Pimpernel. 54. Germination of the Bean. 55. Germination of Indian Corn.

organization, which would not be suspected to consist of cells. The cuticle, or outer skin, of vegetables is nothing more than a layer of cells, firmly adherent; and the pith of oxogenous plants, for example, the substance which makes up the densest part of the centre of the oak is nothing more nor less than closely compressed cellular tissue. In a former illustration we have stated that the air contained in an apple can be expanded into forty-eight times the bulk of the apple; and this is because the inside of the apple is made up of little cells, each of which is filled with closely-compressed air. We have also intimated that leaves perform for vegetables the same functions in a manner that lungs do for man and land animals, and the gills for fishes. But how is this performed? We have shown that the leaves, as well as the skin, are full of cells, and tubes, and pores, just like the lungs and skin of an animal are; but they make use of that very kind of air which man and the animals refuse; they inhale carbonic acid so much of which is generated on the surface of the earth by combustion, as well as otherwise, and in animal bodies,—they retain the carbon, which the animals refuse, and reject the oxygen, which the animals retain, and which supports their life. Carbonic acid is in itself poisonous to animals, but is thus the support and nourishment of vegetables; and the latter, by using it, perform the part of purifying the air. Hence it is seen how one part of nature is adapted to the other; how each element returns to its proper place, and all things to equilibrium. In a kind of box-tree, called Palm of Ceres, it has been observed that there are over 172,000 pores on *one side* of the leaf. The whole earth is covered with vegetable life in such profusion as astonishes the comtemplative mind. Not only the fertile plains, but the rugged mountains, the *most barren spots*, and even the caverns of the ocean, are diversified with plants of various kinds; and from the torrid to the frigid zones every soil and every climate has plants and flowers peculiar to itself. To attempt to estimate their number and variety would be like attempting to dive into the depths of infinity: and, therefore, we shall have to content ourselves with merely giving this interesting part of nature a passing notice, so far at least as to show its analogy and relation to the animal kingdom. Yet every diversity in the species of plants, every variety in the form and structure of individuals, and even every difference in the shade and combination of colors in flowers of the same species, exhibits a distinct conception which ever existed in the Eternal mind.

Linnæus adopted the following pithy designation for minerals, vegetables and animals: "Minerals," he said, "grow; plants grow and live; but animals grow, live and feel." An expression which indeed, if insufficient is not unjust. We may say more distinctively,

however, that animals are those living beings which derive their nutriment from an internal cavity, the stomach; and vegetables are those living beings which derive their nutriment from without.

If we should take a survey of the mineral kingdom we should also behold a striking expression of the manifold wisdom and the power of Deity. It is true we cannot penetrate into the bowels of the earth so as to ascertain the substances which exist and the processes which are going on near its central regions. But within a short distance of its surface we find such an astonishing variety of mineral substances as clearly shows that its internal parts are constructed on the same plan of variety as characterizes the animal and vegetable kingdoms. In the classes of *earthy*, *saline*, *inflammable*, and *metallic fossils*, under which mineralogists have arranged the substances of the mineral kingdom, are contained an immense number of genera and species. Under the *earthy* class of fossils are comprehended diamonds, chrysolites, menillites, garnets, zeolites, corundums, agates, jaspers, opals, pearl-stones, tripoli, clay-slate, basalt, lava, chalk, limestone, ceylenite, strontium, barytes, celestine, and various other substances. The *saline* class comprehends such substances as the following: natron or natural soda, rock-salt, nitre, alum, sal-ammoniac, epsom-salts, etc. The class of *inflammable* substances comprehends sulphur, carbon, bitumen, coal, amber, charcoal, naphtha, petroleum, asphalt, caoutchouc, mineral-tar, etc. The *metallic* class comprehends iridium, platina, gold, mercury, silver, iron, lead, tin, bismuth, zinc, antimony, cobalt, nickel, manganese, magnesium, molybdenum, arsenic, scheele, menachanite, uran, silvan, chromium, tungsten, uranium, titanium, tellurium, sodium, potassium, etc. All these mineral substances are distinguished by many species and varieties. There are reckoned eight genera of earthy fossils. One of these genera, the flint, contains thirty-four species; and these species are distinguished by numerous varieties, such as crysoberyls, topazes, agates, beryls, quartz, emery, diamond, spar, etc. Another genus, the clay, contains thirty-two species, such as opal, pitch-stone, felspar, black-chalk, mica, horne-blende, etc. And another genus, the calc, contains twenty species, as limestone, chalk, slate, spar, fluor, marle, boracite, loam, etc. There are ten species of silver, five of mercury, seventeen of copper, fourteen of iron, ten of lead, six of antimony, three of bismuth, etc. All these mineral bodies present differences as to figure, transparency, hardness, lustre, ductility, malleability, texture, structure, sound, smell, taste, weight, and their magnetical and electrical properties; and they exhibit almost every variety of color. As to structure, a body may be brittle, sectile, or separating in layers, malleable, flexible and elastic. A mineral can only affect the taste

which is soluble in the saliva, and is saline, alkaline, or astringent. Dependent upon light are five characteristics of minerals, color, lustre, diaphaneity, refraction and fluorescence. Color is either metallic or non-metallic. Metallic lustre is that peculiar lustre which distinguishes the metals, although it does not belong exclusively to them; for graphite, which is carbon, and the scales of iodine both possess metallic lustre. Minerals whose color is non-metallic may be found of every hue, from the black onyx to the colorless diamond. The colors which distinguish all other objects are non-metallic. The degrees of lustre are five: splendent, shining, glistening, glimmering, dull, which expresses the absence of lustre. The degrees of diaphaneity are five: transparent, semi-transparent, translucent, translucent on the edges, opaque, when no light passes through, etc. Some of these substances are soft and pulverable, and serve as a bed for the nourishment of vegetables, as black earth, chalk, clay and marle. Some are solid, as iron and silver; and some are fluid, as mercury, sodium, and potassium. Some are brittle, as antimony and bismuth; and some are malleable, as gold and zinc; some are subject to the attraction of the magnet; others are conductors of electricity; some are easily fusible by heat; others will resist the strongest heat of our common fires. Some are extremely ductile, as platina, which has been drawn out into wires less than the two-thousandth part of an inch in diameter; and gold, the parts of which are so fine and expansible, that an ounce of it is sufficient to gild a silver wire more than 1300 miles long.

To have the opportunity of acquiring the most ample and impressive idea of the mineral kingdom one should visit an extensive mineralogical museum, where he will have ocular evidence of the great beauty and the endless variety which this department of nature exhibits. Here it may also be remarked that not only the external aspect of minerals, but also the interior configuration of many of them presents innumerable beauties and varieties. A rough, dark-looking pebble, which to an incurious eye appears only like a fragment of common rock, when cut asunder and polished presents an assemblage of the finest veins and most brilliant colors. Marble workers have daily experience of this in the rough blocks of California and other marble, as well as of granite and other stone, which they reduce to such smoothness and beauty by their art. If one goes into a lapidary's shop which is furnished on an extensive scale, and takes a leisurely survey of his jaspers, topazes, cornelians, agates, garnets, and other stones, he cannot fail to be struck with admiration, not only at the exquisite polish and the delicate wavings which their surfaces present, but at the variety of coloring and design exhibited, even by

individuals of the same species; the latent beauties and diversities of which require the aid of the microscope to discern, and are beyond the efforts of the most delicate pencil to imitate.

And not only in the objects which are visible to the naked eye is the characteristic of variety to be seen, but also in those which can only be discerned by the aid of the microscope. In the scales of fishes, for example, we perceive an infinite number of diversified specimens of the most curious productions. Some of these are of an extended form, some round, some triangular, some square, in short of all imaginable variety of shapes. Some are furnished with sharp prickles, as in the perch and sole; some have smooth edges as in the tench and cod fish,—and even in the same fish there is a considerable variety: for the scales taken from the belly, the back, the sides, the head, and other parts, are all different from each other. In the scale of a haddock we perceive one piece of delicate mechanism; in the scale of a perch another; and in the scale of a sole beauties different from both. We find some of them ornamented with a prodigious number of concentric flutings, too near each other and too delicate to be easily enumerated. These flutings are frequently traversed by others diverging from the centre of the scale, and proceeding from thence in a straight line to the circumference. On every fish there are many thousands of these variegated pieces of mechanism.

The hairs on the bodies of all animals are found by the microscope to be composed of a number of extremely minute tubes, each of which has a round bulbous root, by which it absorbs its proper nourishment from the adjacent humors; and these are all different in different animals. Hairs taken from the head, the eyebrows, the beard, the nostrils, the hand, and other parts of the body, are unlike each other, both in the construction of the roots, and the hairs themselves, and appear as varied as plants of the same genus but of different species.

The parts of which the feathers of birds are composed present a beautiful diversity of the most exquisite workmanship. There is scarcely a feather but contains a million of distinct parts, every one of them of regular shape. In a small fibre of a goose quill more than 1200 downy branches, or small leaves, have been counted on each side; and each appeared divided into sixteen or eighteen different joints. A very small part of the feather of a peacock, one-thirtieth of an inch in length, appears no less beautiful, when viewed through the microscope, than the whole feather does to the naked eye—exhibiting a multitude of bright, shining parts, reflecting first one color and then another, in the most vivid manner.

The wings of all kinds of insects, too, present an astonishing

variety, and no less captivating to the mind than pleasing to the eye. They appear strengthened and distended by the finest bones, and covered with the thinnest membranes. Some of them are adorned with neat and beautiful feathers, and many of them provided with the most symmetrical articulations and foldings for the wings when they are to be withdrawn and folded up in their cases. The thin membranes of the wings appear beautifully divaricated with thousands of little points like silver studs. The wings of some flies are filmy, as the dragon-fly; others have them stuck over with short bristles, as the flesh-fly; some have rows of feathers along their ridges, and borders round their edges, as in the gnats; some have hairs and others hooks, placed with the greatest regularity and order. In the wings of moths and butterflies there are millions of small feathers of different shapes, diversified with the greatest variety of bright and lively colors, each of them so small as to be altogether invisible to the naked eye. The leaves of all plants and flowers, when examined by the microscope, are found to be full of innumerable ramifications, corresponding to the closely interwoven network of veins on the surface of the human body, whose office is to convey the perspirable juices to the pores, and to consist of the barenchymous and ligneous fibres, interwoven in a curious and admirable manner. The smallest leaf, even one which is little more than visible to the naked eye, is found to be thus divaricated, and the variegations are different in the leaves of different vegetables. The way in which the leaves are veined is also another means, beside that of the horizontal sectional aspect of the trunk or stem, of determining the class of flowering vegetable to which their plants belong. If the veins run parallel to each other on the leaf, the plant belongs to the *endogenous* class; if they are reticulated, or interlacing each other in all directions, it belongs to the *exogenous*. Thus, referring to the leaf of the iris, you find that it is of an endogenous, or within-growing, plant; and you know by the same kind of examination that the melon is an exogenous, or without-growing, plant.

A transverse section of a plant not more than *one-fourth of an inch* in diameter, when viewed through a powerful microscope, displays such beauties as cannot be conceived without ocular inspection. The number of pores of all sizes, amounting to hundreds of thousands, which are the vessels of the plant cut asunder. the beautiful curves they assume, and the radial and circular configurations they present in endogenous plants are truly astonishing; and not only the two great classes but every distinct species of plants exhibit a different configuration. There have been counted in a small section of a plant, of the size above stated, 5000 radial lines, each containing

about 250 pores, great and small, which amount to one million two hundred and fifty thousand of these variegated apertures.

Even the particles of sand on the sea shore, and on the rivers' banks, differ as to the size, form and color of their grains; some being transparent, others opaque; some having rough, and others smooth surfaces; some are spherical or oval, and some pyramidal, conical, prismatical, or polyhedral. Mr. Hooke happening to view some grains of white sand through his microscope, hit incidentally upon one of the grains which was exactly shaped and wreathed like a shell, though it was no larger than *the point of a pin.* "It resembled," says he, "the shell of a small water-snail, and had twelve wreathings, all growing proportionately one less than another towards the middle or centre of the shell, where there was a very small, round, white spot." This gives evidence of the existence of shell-fish, which are invisible to the naked eye; and therefore *smaller* than a mite.

The variety of forms in which animal life appears, which the microscope enables us to explore, is indeed wonderful. Microscopic animals are so different from those of the larger kind, that scarcely any similarity seems to exist between them; and from a limited knowledge of them, one would be almost tempted to suppose that they live in accordance with laws directly opposite to those which preserve man and all other animals in existence. When we begin our explorations in this region of animate nature, we feel as if we were entering upon the confines of a new world, and surveying a new race of sentient existence. The number of these creatures exceeds all human calculation or conception. Many hundreds of species, all differing in their forms, habits, and motions, have already been distinguished and described; but we know that by far the greater part of the system of the earth is unexplored, and doubtless forever hid from the view of man. They are of all shapes and forms. Some of them appear like minute atoms; some like spheres or spheroides; some like hand-bells; some like wheels turning on an axis; some like double-headed monsters; some like cylinders; some have worm-like appearances; some have horns; some resemble eels; some are like long hairs, 150 times as long as they are broad; some like spires and cupolas; some like fishes; and some like animated vegetables. Some of them are almost visible to the naked eye; and some so small that the breadth of a human hair would cover fifty or a hundred of them; and others are so minute that millions on millions of them might be contained within the space of a square inch. In every pond and ditch, and in every puddle; in the infusions of pepper, straw, grass, oats, hay, and other vegetables; in paste and vinegar, and in water found in

oysters; on almost every plant, and flower; and in the rivers, seas, and oceans, these creatures are found in such numbers and variety, as altogether exceed our conceptions. A class of these animals, called Medusæ, has been found, so numerous as to discolor the ocean itself. Captain Scoresby found the number in the olive green sea to be immense. A cubic inch contained 94; and consequently a cubic mile would contain 23,909,000,000,000,000, or nearly 24 thousand billions; so that if one person could count a million in seven days, it would have required that over 76,000 persons should have begun 6,000 years ago, in order to have completed the enumeration at the present time. Yet, all the minute animals to which we now allude are furnished with numerous organs of life, as well as the larger kinds. Some of their internal movements are distinctly perceived; their motions are evidently *voluntary*, and some of them appear to be possessed of a considerable degree of sagacity, and to be fond of each others' society. It may in short be unhesitatingly affirmed that the beauties and varieties which exist in those regions of the earth which are invisible to the unassisted eye are far more numerous than what appear to a common observer in the visible domain of nature. How far this scene of creating power and intelligence may extend beyond the range of our miscroscopic instruments it is impossible for us to determine; for the more perfect our glasses are, and the higher the magnifying power we apply, the more numerous and diversified are the objects which they discover to our view. And as the most perfect telescope is, and ever will be, insufficient to convey our view to the boundaries of the great universe, so we may justly conclude that the most powerful microscope that has been, or ever will be, constructed, will be altogether insufficient to guide our view to the utmost limits of the descending scale of creation.

But the knowledge we already possess of these invisible and inexplorable regions gives us an amazing conception of the wisdom and intelligence of the Creator, of the immensity of His nature, and of the infinity of ideas which during all time existed in His all-comprehensive mind. What immense space in the scale of animal life intervenes between an animal which appears only the size of a visible point, when magnified 500,000 times, and a whale a hundred feet long, and twenty broad! The proportion of bulk between one of these beings and the other is nearly 34,560,000,000,000,000,000 to 1, or over thirty-four trillions and a half to one. Yet all the intermediate space is filled up with animated beings of every form and order.

A similar variety obtains in the vegetable kingdom. It has been calculated that some plants which grow on rose leaves and other

shrubs are so small that it would require more than a thousand of them to equal in bulk a single plant of moss; and if we compare a stem of moss, which is generally not above one sixtieth of an inch, with some of the large trees in Brazil and California, of twenty feet diameter, we shall find the bulk of the one to exceed that of the other, no less than 26,969,706,000,000, which, multiplied by 1,000, will produce 26,969,706,000,000,000, or nearly 27 thousand billions of times, which the large tree exceeds the roseleaf plant in size. Yet this immense interval is filled up with plants and trees of every form and size. With good reason then may we repeat the language of the Psalmist, with reference to the Deity: "How manifold are thy works, O Lord! In wisdom hast thou made them all. Marvellous things doeth He, which we cannot comprehend."

On Crystallization.

The subject of crystallization is one which is also of great interest, and in which there is great variety of forms of matter displayed. When a mineral from any cause has been deprived of its cohesion, and its particles separated, if the particles are permitted to associate themselves again to form a solid, in such a way that they can follow their own inclination, the solid will indicate its being constructed according to certain laws; that is to say, the force of cohesion operating in the new formation does not act equally in all directions, but in the great majority of cases sets itself to construct regular geometrical solids, called crystals. For illustration, if any ordinary salt, common salt, or salt-petre, or alum, be added to boiling water until the water will dissolve no more, and a bunch of threads be suspended in this solution, and allowed to stand all night, in the morning the string will be found covered all over with crystals. If common salt be used the crystals will be cubes; if alum they will be four-sided pyramids, placed base to base. The larger the quantity of solution, and the more slowly it cools, the larger will be the crystals; muddy solutions also increase their size. The presence of a substance which does not crystallize with the salts may modify the shape of the crystals; thus, if in the solution of common salt urea be present, the crystals will no longer be cubes, but, like those of alum, octahedra.

The peculiarities of crystallization are many. We might almost say that crystals in their formation exhibit signs of instinct. If a damaged crystal be suspended in a saturated solution of the salt which composes it, the salt out of the solution will begin to repair the damage, so that in a little while the general contour of the crystal will be restored. If in a solution there be small and large crys-

tals, and the solution by an alteration of temperature be made alternately saturated and non-saturated, it will be found that the small crystals become entirely dissolved, while the large crystals grow. Crystals may also be obtained from a vapor condensing; sulphur, arsenic, and iodine, afford examples of this; or from a liquid cooling. If, for example, six or eight pounds of sulphur of bismuth be melted and allowed to cool, if, when a crust has been formed on it, the crust be removed, and the yet liquid substance be poured out, the cavity of the vessel will be found lined with crystals; and often when a metal has been molten, and in its cooled state exhibits no signs of crystallization, yet the existence of the phenomenon may be shown if a weak solvent be applied to remove those particles which mask the formation. If a sheet of tin, while hot, be washed over with a weak solution of hydrochloric acid, the crystals which make the tin *moirée metallique* (or crystallized tin plate), and which previously existed, will appear. A bar of nickel, placed in dilute nitric acid, becomes covered with tetrahedra, because the acid dissolves the intervening uncrystallized metal. But, perhaps, the tendency of particles to arrange themselves in some order of polarity is most strikingly illustrated in solids which are undergoing processes which move their particles. For example the axle, or the tire of the wheel, of a railway carriage, by constant vibration occasions the particles of which it is composed to take positions according to the polarity of their kind, and the consequence is that many axles or trees, when broken after years of service, exhibit throughout their mass crystals of iron.



Very few persons out of the great mass of mankind are aware that when they are walking on snow they are treading beneath their feet the most beautiful crystals. Snow is all composed of crystals in which, though a great diversity of figure is apparent, yet all the angles are equal, being those of an equilateral triangle, sixty degrees; and it is the angles which are the constants in crystallography; these never vary; but the faces of the same form of crystal are always equally inclined. When a flake of snow is examined by a magnifying glass, the whole of it will appear to be composed of fine shining specula, diverging like rays from a centre. Many of the snow crystals are of a regular figure, for the most part

stars of six points, and are as perfect and transparent ice as any we see on a pond or river. Their forms present an almost endless variety, are often very regular and beautiful, and reflect with exceeding splendor the rays of the sun. This is the reason why snow appears white, the light being reflected from every angle and face of the infinite number of crystals. The crystals of snow vary from one third to one thirty-fourth of an inch in diameter, in the natural size. Ice, as we have had occasion to remark before, is crystallized water, just as snow is crystallized water from vapor in the air. See annexed figure.

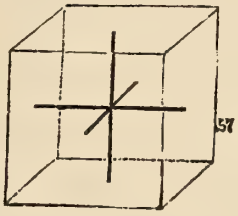
A very slight acquaintance with crystals will assure the observer that those of the same mineral have a close relationship to each other, whenever the same forms are studied. The law of symmetry is one of the principles upon which creation is carried on. It is observable in every organic structure that about a certain plane or certain planes the structure is built up. For example, a plane passing down through the centre of the human frame would divide the body into two similar halves. So with crystals they are all arranged symmetrically about *imaginary* lines; and according to the *arrangement* of these axes of symmetry crystals are divided into six classes or systems.

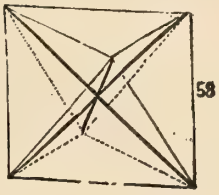
1st. The *Monometric*, *Regular*, *Tessular*, or *Cubic*, *System* has three axes of symmetry, all equal, and all at right angles to each other. About these axial lines the crystal is symmetrically built up, so that when heated it expands equally in all directions, and transmits light without refracting the rays. The primary figures of this system may be found by causing planes to pass perpendicularly through the extremities of the axis. This will produce the cube. The other prominent figure of the system, the *octahedron*, is formed by causing eight planes to pass through the three extremities of the axes. The reader will easily conceive of two tetrahedral, or four-sided, pyramids, being joined to each other base to base, which is the form of this octahedron. By combining these two primary figures in various proportions a series of crystals may be produced. It is proper here to remark that this combination we speak of is only imaginary, for all the forms of crystals are natural, and that by this imaginary combining and modifying the prominent forms of each system a series of crystals appear for each system, which are called *secondary* crystalline forms, which only means that they are forms which are scarce in the system as compared with the primary or prominent forms. The following are the forms of this system and the minerals which crystallize into it:

The tetrahedron, in which form grey copper crystallizes.

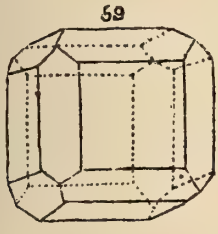
The Cube (Primary) in which form	Fluor Spar, Galena, Rock-Salt, Iron Pyrites	Crystallize
The Octahedron (Primary) "	Alum, Spinell	Crystallize
The Cube Octahedron "	Galena (ore of Lead)	"
The Rhombic Dodecahedron "	Garnet	"
The six-faced Tetrahedron "	Diamond	"
The six-faced Octahedron "	Garnet	"

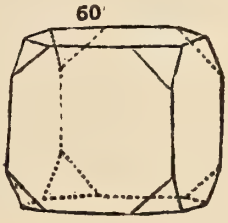


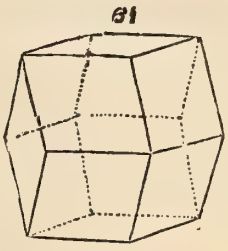


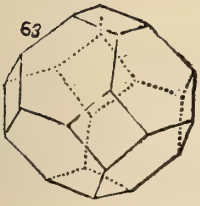


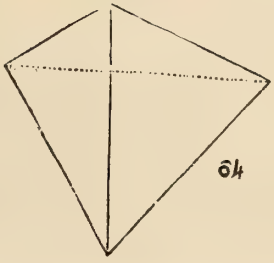
Figures 56, 57, 58 represent the primary.

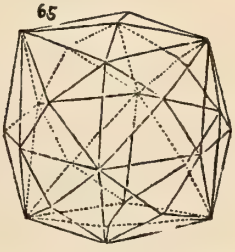




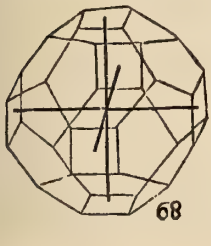




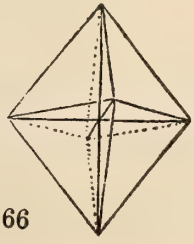


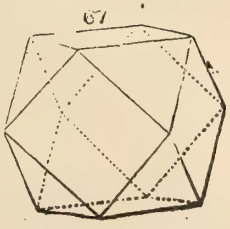


Figures 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, the secondary forms of this system.

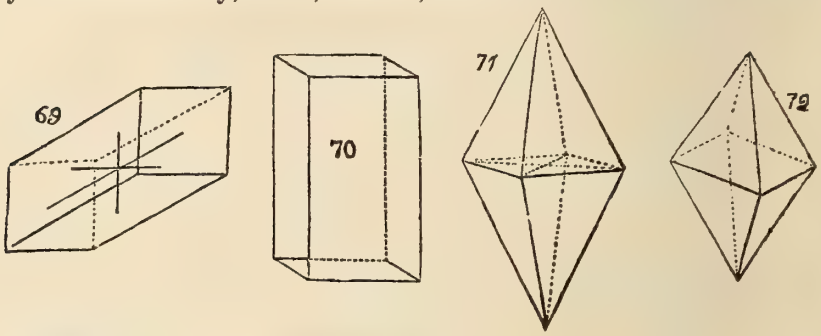




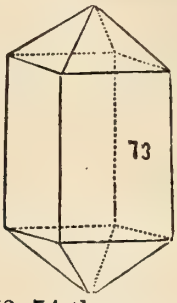




2nd class: The *Dimetric, Right Square; Prismatic* or *Pyramidal system* has also three axes all at right angles to each other; but one axis is longer than the other two. The prism and the double-pyramidal octahedron are the usual primary forms of this system, and it has also its secondary forms. The following minerals are known tc crystallize into this system: Tinstone, ferrocyanide of Potassium, cyanide of Mercury, rutile, anatase, and idocrase.



Figures 69, 70, 71, 72, represent the



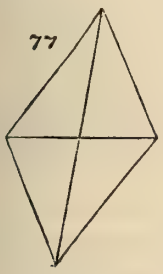
primary; and 73, 74 the secondary forms of this system.

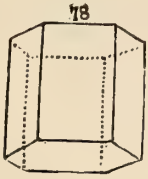
3rd Class: The *Trimetric, Right Rectangular*, or *Prismatic system.* This system has three axes all at right angles, but all unequal. The primary forms in this system are the rectangular prism, and the octahedron. It has also its secondary forms. Nitre, aragonite, topaz, sulphate of

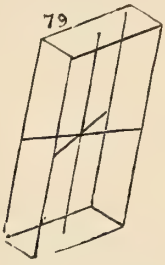


baryta, sulphur, and stilbite crystallize in this system. Figures 75, 76, represent the principal forms of this system.

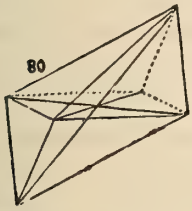
4th Class: The *Monoclinic*, or *Oblique system.* The axes of this system are unequal in length, like the last; but two of them intersect each other, not at right angles. The effect of this is that the base of the prism or octahedron, which are the principal forms of this system, is a parallelogram of unequal sides. Green vitriol, sulphate of soda, phosphate of soda, sulphur, crystallized from its melted state, and borax, crystallize in this system. Figures 77, 78, 79 will give the idea of this system.

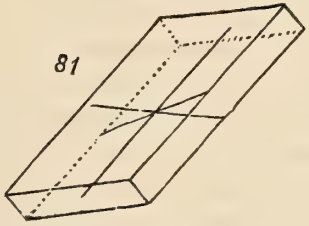






5th Class: The *Triclinic*, *Doubly Oblique*, or *Anorthic system.* This system has also three unequal axes, but none of them intersect at right angles. The prism and the octahedron are the primary forms, but these are necessarily different in form from the preceding; and there are secondary forms. But few minerals appear to crystallize, in this system. The most common are blue vitriol (sulphate

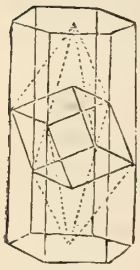




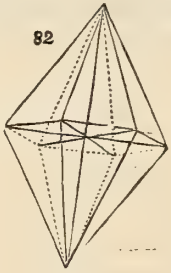
of copper), labradorite, anorthite, and aximite. Figures 80 and 81 show the octahedron and the prism of this system.

6th Class: The *Hexagonal*, and *Rhombohedral System.* The crystals of this system have four axes, three of them in the same plane and intersecting at angles of sixty degrees, and all equal; the fourth perpendicular to these, and varying in length. By the supposed joining of the extremities of these axes a hexagon is formed, which is the base of a prism (therefore six-sided), and of a hexagonal dodecahedron. These primary forms appear in snow crystals, beryl, tourmaline, and nitrate of soda, and the very common quartz crystals, which almost every one has seen, are generally six-sided prisms, terminated by six-sided pyramids. This system is also called the Rhombo-

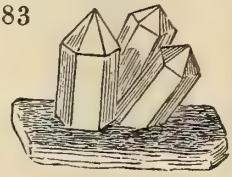
hedral, from the fact that the rhomb, so admirably shown in calc-spar, is the hemihedral form of the hexagonal dodecahedron; that is, if the alternate faces of the double, six-sided pyramid be supposed produced, they will form a six-sided solid, which appears in figure 84. Figures 82, 83, represent the principal forms of this system.



84



82



83

Almost all minerals crystallize into some one of these systems. For example, gold, silver, copper, and platina are found to crystallize in the first or monometric, system. A sublime display of crystallization is seen in some places on the earth's surface. A visit to the island of Staffa, in Scotland, and to the Giant's Causeway, in Ireland, would be amply repaid to one who liked to inspect and contemplate such sublime natural wonders.

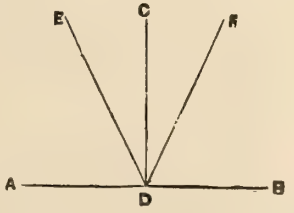
In order that some of the words which we have found it necessary to use in this short description of crystallization may be understood by all our readers, we may explain that monometric signifies having one measurement, or equal measurement, the monometric system being distinguished by equality of axes. Dimetric signifies having two measurements, crystals in this system having one longer axis and two shorter ones, which latter two are of the same length. Trimetric signifies having three measurements, the crystals of this system having three axes, all of which differ in length. Monoclinic signifies having one sloping axis, crystals of this system having one axis, which is not rectangular to the other two. Triclinic signifies having three axes at oblique angles to one another. Hexagonal signifies six-sided, or six angled. Dodecahedral signifies having twelve sides. Rhombohedral signifies having its sides in the form of a rhombus, from a figure whose four sides are equal, but its angles are not right angles.

ON LIGHT: THE PRISM, THE SPECTRUM, SPECTRAL ANALYSIS, &c.

But all this scene of beauty and all these natural wonders we have been contemplating need the agency of light to make them apparent. Light, as we have before remarked, is essential not only to the existence and growth of plants and animals, but also to the

phenomena of colors. It is a manifestation of a substance which is universally present, but needs to be in certain conditions of chemical action in order that the light be made manifest. It radiates from a luminous object in straight lines in all directions, and all objects are seen by its reflection from their surfaces. The *reflection* of the rays of light is that property by which, after striking the surfaces of bodies, they are driven back or repelled. It is, therefore, in consequence of this property that all the objects around us, and all the diversified landscapes on our globe are rendered visible. When light impinges or strikes upon a surface,—say, for illustration, a polished surface, rather more than half of it is thrown back or reflected in a direction similar to that of its approach; that is to say, if it fall perpendicularly upon a surface it will be *perpendicularly reflected;* but, if it fall obliquely, it will be reflected *with the same obliquity.* Hence the following fundamental law, regarding the reflection of light has been deduced both from experiment and mathematical demonstration, namely, that *the angle of reflection is, in all cases, exactly equal to the angle of incidence.** Thus if a ray of solar light be admitted into a dark room through a hole in the window-shutter, the ray will pass straight through to the opposite wall, and by its reflexion from the wall throw a certain amount of light round the whole room. Thus the whole room is to a certain degree lighted, although not with the direct rays of the sun. Also, if the window be not situated directly opposite to the sun, the rays of light which enters must itself be a ray of light reflected from the atmosphere, or from some outside objects. This last ray, however, when admitted, passes through as a direct ray to the opposite wall, and is again reflected. Thus it is seen that there is no end to the reflections of light, and the atmosphere during the day is one great illuminated ocean, from the fact that the solar image is reflected and refracted from every portion of it. You see your own image in a looking-glass, moreover, by the rays of light from your body being reflected; and by placing two plane mirrors in certain positions in relation to each other and to a luminous, object, you can multiply the number of images of an

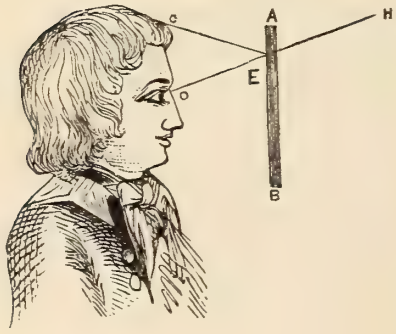
* Let A B represent a plane mirror, and C D a line or ray of light, perpendicular to it. Let E D be the incident ray, from any object; then D F will be the reflected ray, thrown back in the direction D F; and it will make, with the perpendicular C D, the same angle which the incident ray E D does with the same perpendicular; that is, the angle F D C is equal to the angle E D C, in all cases of obliquity; the perpendicular ray being, of course, perpendicularly reflected. The way we see our faces and our persons in a looking-glass, is illustrated by figure 87.



object indefinitely. In the case too of your image being reflected from a looking-glass, the angle of reflection is equal to that of incidence; for your image seems to form the same angle with the glass behind it, as you do before it; and if you change your position it changes also, and maintains the same angle as you do in relation to the glass.

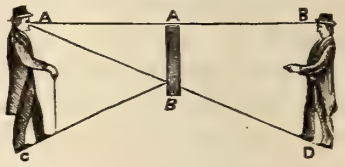
While light, when proceeding from a luminous body, without being reflected from any opaque substance, or inflected by passing near one, is invariably found to proceed in straight lines, without the least deviation, yet, if it pass obliquely from one medium to another, it always deviates from its original course, and takes a new one. This change of direction, or bending of the rays of light, is what is termed *refraction*, from the Latin ward *frangere*, to break or to bend. The angle of refraction depends upon the obliquity of the rays falling upon the refracting surface, being always such that the sine of the incident angle is to the sine of the refracted angle in a given proportion.* The *incident* angle is the angle made by a ray of

87



Let A B represent a mirror, and O C a person looking into it. If we conceive a ray, proceeding from the forehead C E, it will be reflected

Fig. 88.



to the eye at O, agreeably to the angle of incidence and reflection, but the mind puts C E O into one line, and the forehead is seen at H, as if the lines C E O had turned on a hinge at E. It is a peculiar faculty of the mind to put two oblique lines, C E and O E, into one straight line O H; yet, it is seen every time we look at ourselves in a mirror. For the ray really strikes the mirror from C at E, and thence strikes the eye at O: and it is that journey which determines the distance of the object; and hence we see our image as far behind the mirror as we stand before it. Though a ray is here taken only from one part of the face, it may be easily conceived that rays from every part of the face must produce a similar effect.

In every plane mirror, the image is always equal to the object, at which distance soever it may be placed; and as the mirror is only at half the distance of the image from the eye, it will completely receive an image of *twice* its own length. Hence a man six feet in height may view himself completely from tip to toe in a looking-glass of three feet in height, and half his own breadth; and this will be the case at whatever distance he may stand from the mirror, as is shown in figure 88.

---

* For illustration of refraction: Let A D H I, fig. 89, be a body of water, A D its surface, C a point in which a ray of light, B C, enters from the air into the water. This ray, by the greater density of the water, instead of passing straight forward in its first direction to K, will be bent at the point C, and pass along in the direction C E, which is called the refracted ray. Let the line F G be drawn perpendicular to the surface of the water in C; then it is evident that

light and a line drawn perpendicular to the refracting surface, at the point where the light enters the new medium. The *refracted* angle is the angle made by the ray in the refracted medium with the same perpendicular produced. The sine of the angle is a line which serves to measure the angle, being drawn from a point in one side perpendicular to the other.

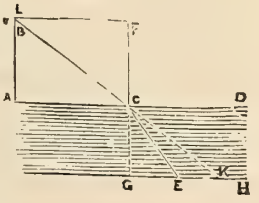
On the principle of refraction, you may, by means of a multiplying glass, see as many images of a luminous object as the glass has different surfaces. If the multiplying glass have twenty different surfaces, you see twenty different images; or, if the surfaces could be cut and polished so small that it has five hundred surfaces then you see five hundred images of the same luminous object. Thus, it is seen, the light of a given luminous object will be the more diffused, the more surfaces there

the ray B C, in passing out of the air, a *rare* medium, into a *dense* medium, as water, is refracted into a ray C E, which is nearer to the perpendicular C G than the incident ray B C; and, on the contrary, the ray E C passing out of a denser medium into a rarer, is refracted into C B, which is farther from the perpendicular.

The same thing may be otherwise illustrated, as follows:—Suppose a hole be made in one of the sides of the vessel, as at A, and a lighted candle placed within two or three feet of it, when empty, so that its flame may be at L; a ray of light proceeding from it will pass through the hole A in a straight line, L B C K, until it reach the bottom of the vessel at K, where it will form a small circle of light. Having put a mark at the point K, pour water into the vessel until it rise to the height A D; and the spot of light which was formerly at K will appear at E; that is, the ray which went straight forward when the vessel was empty to K, has been bent at the point C, where it strikes the water, into the line C E. In this experiment it will be necessary that the front of the vessel be of glass, in order that the course of the ray may be seen; and if a little soap be mixed with the water, so as to give it a little mistiness, the ray C E will be distinctly perceived. If, instead of fresh water, we fill the vessel with salt water, it will be found that the ray B C is more bent at C.

In like manner alcohol will refract the ray B C more than salt water, and oil more than alcohol; and a piece of solid glass, of the shape of the water, will refract the ray still more than the oil. Further explanation: In this figure B C is the incident ray, F G the perpendicular, B F the sine of the angle of incidence B C F, and G E the sine of the angle of refraction G C E. Now, it is a proposition that the sine B F, of the angle of incidence B C F, is either accurately, or very nearly, in a given proportion to the sine G E of the angle of refraction G C E. This ratio of the sines is as 4 to 3 when the refraction is made out of air into water; that is, B F: G E:: 4: 3. When the refraction is made out of air into glass, the proportion is about as 31 to 20, or nearly as 3 to 2. If the refraction be out of air into diamond, it is as 5 to 2; that is, B F: G E:: 5: 2. The denser the medium is the less is the angle and sine of refraction. If a ray of light, F G, were to pass from air into water, or empty space into air, in the direction C F, perpendicular to the plane A D, which separates the two mediums, it would suffer no refraction, because one of the essentials to that effect is wanting; namely, the obliquity of the incidence.

Fig. 89



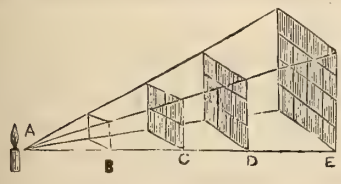
The refraction of the atmosphere produces an effect upon the heavenly bodies that their apparent positions are generally different from their real. In consequence of this the sun is seen before he comes to the horizon in the morning, and after he has sunk beneath it in the evening, and hence this luminary is never seen in the place in which it really is, except in places within the torrid zone, when it passes the zenith at noon. The sun is visible when thirty-two minutes of a degree below the horizon, and when the opaque curvature of the earth is interposed between our eye and that orb.

are for it to be refracted and reflected from. But if a luminous object be completely separated from you by the intervention of an opaque body, as is the sun from us during our night by the intervention of the body of the earth, then you have no light from the luminous object. Light passes through all transparent substances, such as the atmosphere, water, and glass; and in its passage through these substances of different densities it is refracted, as we have explained, according to certain laws. A body, ordinarily speaking, is said to be transparent when every part between its two surfaces is of the same density, and therefore the ray of light emerges on the opposite side. In the case of the looking-glass, the ray of light would pass through it, being refracted, but for the coating of quicksilver which it has on its back, which prevents it passing through, and causes it to be reflected. A body is said to be opaque when the parts between its two opposite surfaces are of different densities, and so the rays of light are destroyed by the many refractions and reflexions, and do not emerge on the opposite side. All substances that are not transparent are opaque, though there are different degrees both of transparency and opacity. Light and heat usually accompany each other, but light is not always manifested where strong heat is evolved. The heat accompanying the solar light is so great that when concentrated on double-convex lenses it will be sufficient to fuse the densest metals. Mr. Parker, of Fleet Street, London, once made a burning glass three feet in diameter, and when fixed in its frame it exposed a clear surface of more than two feet eight inches in diameter, and its focus, by means of another lens, was reduced to a diameter of half an inch. The heat produced by this lens was so great, that iron plates were melted in a few seconds; tiles and slate became red-hot in a moment, and were vitrified, or changed into glass. Sulphur, pitch, and other resinous bodies were melted under water; wood-ashes, and those of other vegetable substances, were turned in a moment into transparent glass: even gold was rendered fluid in a few seconds; and notwithstanding the intense heat at the focus, the finger might without the slightest injury be placed in the cone of rays within an inch of the focus. The force of the heat collected in the focus of the double-convex glass is to the common heat of the sun as the area of the glass is to that of the focus; it may, of course, be a hundred or even a thousand times greater in the one case than in the other. When a fire or a candle burns, or a horse strikes his shoe against a stone, light as well as heat is evolved; but a stack of hay, or a pile of dry goods, if allowed to stand long enough in a damp condition, may be heated to a high pitch without any light being evolved. Light is produced in many ways artificially, as by chemical action in

the combustion of solids, liquids, and gases; by percussion, as in the use of the flint and steel, which is called "striking fire," and by the electric light, which may be considered the most intense and brilliant of all artificial lights. This last is procured from the ignition of two points of charcoal through which the current of electricity from a powerful battery is passed. But all terrestrial modes of obtaining light, such as chemical action, friction, ignition of solids, phosphorescence, crystallization, and the electric light, sink into insignificance before the great natural source of light, the sun, the centre of our planetary system, and the source both of light and heat to our world. Sir John Herschell has estimated that "the sun gives out as much light as 146 lime lights would do if each ball of lime were as large as the sun, and gave out light from all parts of its surface; and that the heat evolved from every square yard of the sun's surface is as great as that which would be produced by the burning of six tons of coal on it each hour."

Although it is said that light is emitted in straight lines from a luminous body it must not be understood that a given quantity of light goes on continuously in the same bulk or volume; it is continually expanding as it recedes from the point of emission. The areas of space filled with it as it proceeds are to each other as the squares of their respective distances from the luminous point of emission; and consequently the intensity or illuminating power of the light is inversely as the areas. Thus luminous bodies give, at the respective distances of two, three, or four yards, a fourth, a ninth, and a sixteenth, respectively, of the light they give at one yard from them; the areas illuminated and filled with the diffusing light being, at these several distances, four, nine, and sixteen times as great as at one yard distance. It may, therefore, be said more correctly that light diffuses itself universally in expanding volumes, bounded as the volumes increase by straight diverging surfaces, which form the boundaries of areas whose relative magnitudes are as the square of their distances.* The larger the luminous body is, the more space it will enlighten; and it is plain that the enlightened space will cor-

* This may be illustrated by the following figure: Suppose that light which flows from a candle A, and passes through a square hole B, is received upon a plane C, parallel to the plane of the hole; or let the figure C be considered as the shadow of the plane B. When the distance of C is double of B the length and breadth of the shadow C will be each double of the length and breadth of the plane B, and treble when A D is treble of A B, and so on. Therefore the surface of the shadow C at the distance A C, double of A B, is divisible into four squares, and at a treble distance into nine squares severally equal to the square B. The light then which falls upon the plane B,



respond in form with the body which enlightens it. Thus, the sun being of globular figure,—and, as we may here, for illustration, suppose it luminous all over its surface,—enlightens an area, however great in extent, of spherical shape; the space nearest the sun being most enlightened, and the light becoming less as the distance from it becomes greater. The larger the luminous body is, too, at the greater distance will it be seen by the eye; also, the larger it appears at a given place the more light it will diffuse at that place; for the larger will its image be to be reflected and refracted from all objects; and, conversely, the smaller a luminous body appears from a given place the less light will it diffuse at that place, for the smaller will its image be reflected from all objects. When, therefore, a luminous body, of however great a size, is at so great a distance from a place as not to be perceivable by the eye, then it gives no direct light at that place, from the fact that there is no image of it to be reflected. Also, if one was situated beyond the range of our atmosphere, away out in the ethereal regions, it is determined he would experience no such flood of light as he does at the earth's surface, because of the absence of a reflecting medium. The denser and rougher in surface bodies are the better in general they reflect the light, for the image of the sun is reflected from one corner, face, or angle of rough surfaces to the other so as to make them more luminous than if they were smooth, though of the same density as they are. But the ether which exists beyond the limits of our atmosphere being so exceedingly rare, does not reflect the image of the sun; and the sun to an observer situated there, would appear like a luminous globe placed in a black canopy, and surrounded on all sides with pitchy darkness. So the stars might appear like luminous points scarcely distinguishable, in regions of the blackest darkness. The appearance of the earth would depend upon the distance of the observer from it; the nearer he would be to the earth the more luminous would it appear, the light being reflected from its surface and atmosphere.

On the subject of light, two leading theories have been propounded in the philosophic world. Sir Isaac Newton supposed that light was corpuscular, or composed of minute particles of a material nature,

---

being suffered to pass to double that distance, will be uniformly spread over four times the space, and consequently will be four times less intense in every part of that space. And at the treble distance it will be nine times thinner, and at a quadruple distance sixteen times thinner than it was at first. The quantities, therefore, of this rarified light received upon a surface of any given size and shape, when removed successively to their several distances, will be but one-fourth, one-ninth, one-sixteenth of the whole quantity received by it at the first distance A B. This law holds good with respect to the quantity of light received by the planets at their respective distances from the sun.

which are constantly emitted in all directions by luminous bodies. This hypothesis was adopted to a great extent, especially by British philosophers, but in later times it has given way to the theory of Huygens, who assumes that all space is pervaded by an elastic ether, the undulatory motions of which, when it is disturbed, manifest themselves in light, just as motion in water gives waves, or sound in air gives vibrations. Neither of these theories, it was afterwards thought, having fully explained the phenomena of light, another explanation was propounded, which corresponds very much with that of Huygens. This is that all space is filled with electricity, the elastic ether of Huygens, which, as is known, penetrates all bodies; and that the great ocean of electricity in free space, having nothing to compress it, yields freely in all directions, and only undulates when passing through other media, such as the atmosphere, where it suffers interruption, and also, to a certain extent, absorption. Thus far as to the theories. But the fact is that men will be ever changing their theories, rejecting old ones and substituting new ones, until they have come to a knowledge of the subject concerning which the theory is. No false theory will fully satisfy the mind, or last permanently. The phenomenon of light does not depend upon the emission of luminous particles from luminous bodies, nor does it necessarily depend upon all space being filled with a substance of any particular *name* such as ether, electricity, or any other name, provided it be a transparent and reflecting medium fitted to transmit the rays of light, as it is; but it consists simply in this, the infinite multiplication of the image of the luminous object by reflection and refraction from the media on all sides of it and to all visible distances from it. It depends simply upon this, that a luminous body exists, and is within visible distance, and then the amount of light places possess will depend upon the adaptedness or unfitness for reflexion of the media of these places.* As to the luminous body itself the phenomenon of light arises as does heat from the violent agitation of its ultimate elements in their seeking equilibrium by chemical separation or combination; and the production of the light is confined to the *luminous* body and is not necessarily common to any *illuminated* body with it. When a body is permanently luminous, as the sun is, then the space which it illuminates is always illuminated (unless parts of it, which, during certain intervals, are separated from the luminous body by the intervention of opaque bodies), and so the light

* The case of the Fixed Stars, whose light we see, but whose discs are beyond the reach of our best telescope, does not permit a contradiction to this explanation. It is their image infinitely multiplied by reflexion and refraction which we see, and they are visible in this way. But there are infinite numbers of stars so remote that their light never reaches us.

cannot be said to occupy any time in passing from one point of that space to another, or from the luminous body to any point of that space, as the common theories suppose, one of which has it to travel at the rate of nearly 200,000 miles a second. This theory is based upon deductions which have been drawn from observations made upon the satellites of Jupiter, at the time of their emergence from an eclipse. From these observations it was determined that it took the light a certain length of time to reach the earth from the satellites after their emergence from behind the body of the planet. But it appears quite evident that at the instant of their emergence, coming into the flood of solar light, they would be visible from the earth; and that no perceptible time might intervene between their emergence and their being seen by an observer on the earth. Light cannot be said to occupy any time in moving through a space in which it is constantly present. The reason why we do not always experience the light of the sun is because we are prevented from doing so by the intervention of the body of the earth between us and the sun during night-time, or by the intervention of some other object between us and the sun. But when the morning has come, and the sides of the earth on which we live has come round to face the sun; or when any other body, which has shut out from us the light of the sun, has been removed, and that luminary shines with a clear face, we can see him just in the same time as it takes us to see our neighbor standing at our elbow. No perceptible time intervenes between our opening our eyes to see the sun and our seeing him, although we are certainly separated from that luminary over ninety millions of miles. Nor does it take the light of any of the stars that are visible to us any length of time to travel from them to us. The light of the stars visible to us is always present to the earth, and we only need to be on the side of the earth facing those stars, on a clear night, in order to see them instantly. The only condition necessary to our seeing the star instantly is for the star to be *visible*, and we then may see it in the same length of time it takes us to see the sun when that luminary is visible; that is, when our eyes are opened and directed towards it, no time at all; although it may be more than a thousand millions of times the distance from us that the sun is. A lighted candle, it is said, can illuminate a space of 4 cubical miles; that is, a spherical space whose diameter is $1\frac{3}{5}$ miles, the candle being placed in the centre. This candle, therefore, would be seen by an observer placed at any point in that space, say any extremity of a radius; and neither would it take the light any time to reach his eye, nor would there necessarily be any luminous particles emitted by the candle towards his eye. But the image of the candle is present in every point in the

space, and is reflected from all the reflecting media. The nearer the observer is to the candle the larger it appears, and the more intense is its light; the farther he removes from it the smaller it appears, and the less intense the light becomes, until finally the candle vanishes entirely from his sight, and there is no perceptible light from it in the surrounding space. So it is evident that when, on their emergence from behind the body of the planet, a sufficiently large portion of the surface of Jupiter's satellites has become enlightened to render them visible to a telescopic observer at the earth (for these satellites are not discernible by the naked eye); no perceptible time need intervene until he sees them, provided no other body, as clouds, intervene to obstruct his view of them.*

Nor is electricity found to occupy any perceptible time in travelling, by means of wires, to any distance on the earth's surface; that is, the instant the message is sent by the telegraph operator, *that same instant* it is received at the other end of the wire, if the distance be over twelve thousand miles, or half the earth's circumference. The furthest point on the earth's surface, reckoning from any given place, is somewhat over twelve thousand miles, or half the earth's circumference.

The reader will be likely to observe himself, the absurdity of the theory which supposed light to be dependent upon the emission of luminous particles from a luminous body; for, for example, not a particle of the matter of which the sun is composed can ever go beyond the range of his immediate attraction; that is, every particle of the matter of which that body consists always did and always will belong to him; he cannot lose it. Secondly, he will see the absurdity of supposing that luminous particles of matter could penetrate through thick plates of glass or other transparent substances, which admit the light so freely, as windows, double or multiple; or the glass globes which surround our common lamps; or diamond, one of the hardest known substances. But, as we have said before, light is only a phenomenon, the image of the luminous object infinitely multiplied as well as the object itself, as far as the manifestation of light is concerned; while, on the other hand, the substance of which light is a manifestation may be called electricity, or any other name one pleases. It is everywhere present, and manifests the light when the conditions necessary for that manifestation exist. All bodies possess

---

* When immense distances are considered, it indeed appears reasonable that the passage of light requires time proportionate to the distance.† Those who may understand it in this way I do not disagree with; although little of that belief is necessary to those who consider the heavenly suns as permanently luminous.

† See "Light and Electricity," by Tyndal.

in themselves, to a greater or less extent, the principle of light and of heat. But it mostly exists in a latent state in terrestrial bodies, needing to be called into action in order that it become apparent. These principles exist in an active state in the sun; and, therefore that luminary is the great source not only of light but of heat to the earth.* That part of the earth situated most favorably towards him receives the greatest quantity of his light and heat. The space which is constantly filled with the solar light is as constantly filled with the solar heat, and the reason we do not experience as much light and heat at one season of the year as we do at another is because the situation of the earth in relation to the sun does not admit of it. The earth is more than three millions of miles nearer the sun in December than in June, yet we have less light and heat in the former season than in the latter, owing to the parts of the earth which we occupy being turned away from the sun, or in other words, being situated more obliquely towards him. The earth is a dense body situated in the mighty ocean of the solar light, as a theatre upon which he may display his exhaustless power and energy, and give animation, beauty and sublimity, to every surrounding scene.

The Prism.

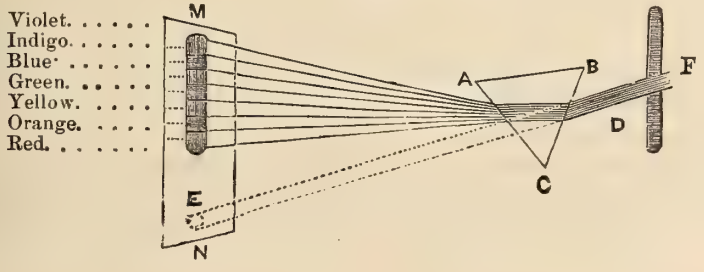
The prism is the most important and instructive of all optical lenses and it has enabled philosophers to add what may be called another branch of science, "Spectrum Analysis," to those already known. This instrument is triangular, and generally about three or four inches long. It is commonly made of white glass, as free as possible from veins, and bubbles, and other similar defects and solid throughout. Its lateral faces and sides are perfectly plane and finely polished. The angle formed by the two faces, one receiving the ray of light that is refracted in the instrument, and the other giving it an issue on its return into the air, is called the refracting angle of the prism. By means of this triangular piece of glass we are enabled to decompose and analyze a ray of light, and, from the knowlege so obtained, to account for the phenomena of colors. If a ray of light, proceeding directly from the sun, be admitted through a circular hole, half an inch in diameter, into a room, the walls of which should be as dark as possible, or hung with black calico, and a prism intersect it near the window, the ray will cease to go forward in a straight line, being refracted, or bent a little upwards out of its original di-

* Modern research has placed it beyond a doubt that heat is a mode of motion of the ultimate element of bodies. Thus, the great heat of the sun arises from the continued violent agitation of the elements of that immense body propagated to the earth and through space by means of the agitated ether.

rection, and will be decomposed, and exhibit, on a white screen placed opposite to the window to receive it, a beautiful spectrum, consisting of seven colors, beginning below and extending upwards in order of red, orange, yellow, green, blue, indigo, and violet. If the refracting angle of the prism A C B, in the figure,* be sixty four degrees, and the distance of the white screen from the prism eighteen feet, the length of the image will be about ten inches, and the breadth two inches. This oblong image is called the *prismatic spectrum*, and in it the red color is least, and the violet the most bent from the original direction of the solar beam. The sides of the spectrum are right lines distinctly bounded; and the ends are *semi-circular*. This circumstance shows that it is still the image of the sun, but elongated by the refractive power of the prism. By an ordinary glass prism, such as those used for glass lustres, the margins of the colors are not clearly defined, but seem to melt or mix, the one into the other. If a hollow glass prism filled with bisulphide of carbon be used, the seven colors of the spectrum are much more clearly defined. Sir Isaac Newton made this interesting and important discovery, that white light is a compound of rays of various kinds, having different colors, and indices of refraction; and that all the substances which appear colored when illuminated with white light, derive their colors only from a kind of "natural selection," that is, they may reflect certain colored rays and absorb or transmit others. He however, concluded, from various experiments on this subject, *that every substance in nature, provided it be reduced to the requisite degree of thinness, is transparent.* This is plain also, from the fact that all substances are of a nature reducible to an invisible gas. Many transpar-

* The separation of a ray of white light into different colors, by refraction, may be more accurately understood as represented in figure 91, where a ray of light is admitted through an aperture F in a window-shutter into a darkened chamber, and causing it to fall on the prism A B C. A ray, D, thus entering, and suffered to pass unobstructed, would form on a plane surface a circular disc of white light E; but the prism being so placed that the ray may enter and quit it at equal angles, it will be refracted in such a manner as to form on a screen M N, properly placed, an oblong image, called the solar spectrum, and divided horizontally into seven colored spaces or bands of unequal extent. The angle A C B is the refracting angle of the prism. It is seen that the ends of the spectrum are semicircular.

Fig. 91



ent media reflect one color and transmit another; gold leaf reflects the yellow, but it transmits a sort of green color by holding it up against a strong light.

Light is said to be the source of all colors; but, if the principle of light is inherent in all substances, how can it be said that colors are not inherent in them? Light itself is in every case, a manifestation of matter. The matter which gives rise to the light is sometimes as in the case of carburetted hydrogen gas, itself invisible; yet when properly examined, the light proceeding from it displays all colors, and renders them apparent in all other objects. The colors displayed by different objects, owing to their peculiar adaptedness for absorbing or reflecting certain of the colors of light, are various, and of different degrees of intensity; but the colors displayed by light in the prism are permanently the same, only, it may be, differing slightly in their intensity, according to the source whence the light is derived.

When the solar spectrum, obtained as already described, is thrown upon a white screen, it is amusing to see the effect of different colored rays upon different pigments; and if slips of colored paper be used the results are very distinct. By passing the ray of white light through two prisms, inverted to each other, and filled with bisulphide of carbon, the spectrum may be made to stretch much farther across the screen, and the sunbeam undergoes by the double refraction a greater amount of dispersion. The colors are now more clearly separated, and the experiments with the slips of colored paper or other pigments, can be made with much greater facility. The drawing apart or separation of the colors is called dispersion, and thus the structure may be made shorter or longer, by using prisms of different dispersive powers, Although it is difficult for the best eyes to point out the exact boundaries of each color, Sir Isaac Newton concluded after repeated experiments, that the lengths of the colors with the particular glass prism which he used were as follows: Red 45, orange 27, yellow 40, green 60, blue 60, indigo 48, violet 80; total number of equal spaces into which the spectrum was divided, 360°. By making a hole in the screen opposite any one of the colors of the spectrum, and placing the screen in such a position as to allow that color only to pass, and by letting the color thus separated fall upon a second prism, he found that each of the colors was alike refrangible, because the second prism could not separate them into an oblong image, or into any other color. Hence he called all the seven colors *simple* or homogeneous, in contradistinction to white light, which he called compound or heterogeneous. For he also ascertained that the colors could be brought together, again recombined; and that the

result was the recomposition of white light. This syntnesis of color is readily shown by using a second prism placed in an inverted position to the other, and allowing the ray of light to pass through this, or by allowing the colored rays to fall upon a double-convex lens, when they are brought to a focus, and a spot of white light alone is visible. The experiment can be varied by mixing seven different colored powders together, the colors being, of course, as near as possible to those of the solar spectrum; or these colors may be painted on a circular piece of cardboard, and when this is properly adjusted, and whirled round with sufficient velocity, the colors seem all blended together, and produce the nearest imitation of white light.

If a sunbeam is passed through a double-convex *lens, which represents a series of prisms with their bases attached to each other*, and their thinnest edges outward, it is not to be wondered at that the disc of light obtained should be *fringed vith colors*, because it has been shown that a prism decomposes white light. If all the colors were of the same refrangibility there would be no fringes of colors on the edges of bodies seen through a common telescope or microscope; but as the focus of the red ray is formed further away from the lens than that of the blue ray, because the latter is more refractive than the former, it follows that a separation of color must occur, which is technically termed *chromatic aberration.* Newton, however, examined the ratio between the sines of incidence and refraction of the decompounded rays, and found that each of the seven primary color-making rays had certain limits within which they were confined. Thus, let the sine of incidence in glass be divided into 50 equal parts, the sine of refraction into air of the *least* refrangible, and the *most* refrangible rays will contain respectively 77 and 78 such parts. The sines of refraction of all the degrees of red will have the intermediate degrees of magnitude from 77 to $77\frac{1}{8}$; orange from $77\frac{1}{8}$ to $77\frac{1}{5}$; yellow from $77\frac{1}{5}$ to $77\frac{1}{3}$; green from $77\frac{1}{3}$ to $77\frac{1}{2}$; blue from $77\frac{1}{2}$ to $77\frac{2}{3}$; indigo from $77\frac{2}{3}$ to $77\frac{7}{9}$; and violet from $77\frac{7}{9}$ to 78. From the foregoing statements it is evident, as has been shown above in the case of double-convex lenses, that as any portion of an optic glass bears a resemblance to the form of a prism, the component rays which pass through it must necessarily be separated, and will consequently paint or tinge the object with colors. The edges of every convex lens approximate to this form, and it is on this account that the edges of objects viewed through them are found to be tinged with the prismatic colors. In such a glass, therefore, the different colored rays will have different foci, and will form their respective images at different distances from the lens.

The amount of dispersion of the colored rays in convex lenses depends upon the focal length of the glass, the spaces which the colored images occupy being about the twenty-eighth part. Thus, if the lens be twenty-eight inches focal distance, the space between the red and the violet colors of the spectrum will be about one inch; if it be twenty-eight feet focal distance the same space will be one foot, and so on in proportion. When such a succession of images, formed by the different colored rays is viewed through an eye-glass, it will appear to form but one image, and consequently very indistinct, and fringed with various colors; and as the red color is largest or seen under the greatest angle, the extreme parts of the confused image will be red, and a succession of the prismatic colors will be formed within this red fringe, as is generally formed in common refracting telescopes, constructed with a single object-glass. To this circumstance it is owing that the common refracting telescope cannot be much improved without having recourse to lenses of very long focal distance; and hence about 180 years ago such telescopes were constructed of 80,100, and 120 feet focal length. But still the image was not formed so distinctly as desired, and the aperture of the object-glass had to be limited. This is a defect which was long regarded as without a remedy, and even Newton himself despaired of discovering any means by which the defects of refracting telescopes might be remedied, and their improvement effected. But this difficulty has been most ingeniously surmounted by combining lenses of unequal dispersive material; and it was Mr. Dollond who proved in 1757 that by combining a concavo-convex lens of flint glass with a double-convex one of crown glass a lens was obtained which virtually refracts the various colored rays to one focus, and is, therefore, achromatic, that is, free from color. For absolute achromatism various lenses are necessary, but for all practical purposes two are found to be sufficient, provided their curvatures are such as to combine the yellow and red rays.

It was originally observed by Newton, and the fact has since been confirmed by the experiments of Herschell, that the different colored rays have not all the same illuminating power. The violet rays appear to have the least illuminating effect; the indigo more; and the effect increases in the order of the colors, the green being very great; between the green and yellow the greatest of all; the yellow the same as the green; but the red less than the yellow. Herschell also endeavored to determine whether the power of the differently colored rays to heat bodies varied with their power to illuminate them. He introduced into a dark room a beam of light which was decomposed by a prism, and then exposed a very sensible

thermometer to all the rays in succession, and observed the heights to which it rose in a given time. He thus found that their power to heat increased from the violet to the red. The mercury in the thermometer rose higher when its bulb was placed in the indigo, than when it was placed in the violet; still higher in blue, and highest of all at red. Upon placing the bulb of the thermometer below the red, quite out of the spectrum, he was surprised to find that the mercury rose highest of all, and concluded that rays proceed from the sun, which have the power of heating, but not of illuminating bodies. These rays have been called invisible solar rays; they were about half an inch from the beginning of the red rays; at a greater distance from this point the heat began to diminish, but was quite perceptible at a distance of one and a half inches. He determined that the heating power of the red to that of the green rays was as $2\frac{3}{4}$ to 1, and of red to violet as $3\frac{1}{2}$ to 1. He afterwards made experiments to collect these invisible caloric rays, and caused them to act independently of the light, from which he concluded, that they are sufficient to account for all the effects produced by the solar rays in exciting heat; that they are capable of passing through glass, and of being refracted and reflected, after they have been finally detached from the solar beam.

M. Ritter of Jena, Dr. Wollaston, Beckman and others have discovered that the rays of the spectrum are possessed of certain chemical properties; that beyond the least brilliant extremity of the spectrum, namely, a little beyond the violet ray, there are invisible rays which act chemically, while they have neither the power of heating nor of illuminating bodies. Muriate of silver exposed to the action of the red rays becomes blackish; a greater effect is produced by the yellow; a still greater by the violet; and the greatest of all by the invisible rays beyond the violet. When phosphorus is exposed to the action of the invisible rays beyond the red. it emits white fumes, but the invisible rays beyond the violet extinguish them.

It has likewise been found that certain rays of the spectrum, particularly the violet, possess the property of communicating the magnetic influence. Morchini, of Rome, appears to have been the first who discovered that the violet rays of the spectrum had this property. The result of his experiments was, however, involved in doubt, but it was believed to be established by a series of experiments, carried out by Mrs. Somerville, a lady who is celebrated for her scientific pursuits. This lady having covered half a sewing needle, of about an inch long, with paper, exposed the other half for two hours to the violet rays. The needle had then acquired north polarity. The indigo rays produced nearly the same effect; and the

blue and green rays produced it in a still less degree. In the yellow, orange, red, and invisible rays, no magnetic influence was exhibited, although the experiment was continued for three successive days. The same effects were produced by enclosing the needle in blue or green glass, or wrapping it in blue or green ribbon, one half of the needle being always covered with paper.

Though the whole space of the solar system is constantly replenished with light and heat, yet the whole system is constantly dependant on the sun for them; and as a candle when extinguished leaves darkness instantly behind it, so the sun, if by any means it were extinguished, would leave our whole system instantly in pitchy darkness. This we positively know from the fact that no image can appear in a mirror unless an original be present to the mirror; and that the sun exists in a luminous state we know from the fact that, when all things are prepared for it, his luminous image is instantly impressed upon the spectrum That it is the sun's elongated image is evident from the ends of the spectrum being arcs of a circle; the elongation being effected by the different refractive powers of the different colored rays. Now it seems quite evident that the different powers of dispersion, of illuminating, of heating, of producing chemical or magnetic effects, possessed by the different colored rays, and by the invisible rays beyond these, may arise, as the different degrees of light and heat themselves, from the nature of the different combustible substances of which the sun is made up. That these substances are not in general very different from the substances which produce light in the earth, we reasonably infer from the consideration that any common artificial light, such as a candle, a gas, or a petroleum light, gives the same spectral colors as the solar light does; only the colors may vary slightly in intensity. The *spectral bands*, however, which we shall next consider, may give us some insight into the nature of the component substances of the sun's ignited parts.

There was one feature of the solar spectrum which escaped the observation of Newton, and it tends to show how much knowledge may be lost by performing an experiment in the least perfect manner. He allowed his sunbeam to pass through a circular hole to the prism, and thus missed the dark bands and fixed lines which cross the colors from end to end of the spectrum at right angles to its length. Dr. Wollaston made an important discovery by admitting the light through a narrow slit, instead of a circular aperture, which is thus described by Sir David Brewster. In the year 1802, Dr. Wollaston announced that in the spectrum formed by a fine prism of flint glass, free from veins, when the luminous object was a slit the twentieth part of an

inch wide, and viewed at the distance of ten or twelve feet, there were two fixed dark lines, one in the green and the other in the blue spaces. This discovery did not excite any attention, and was not followed out by its ingenious author. Without knowing of Wollaston's observations, Mr. Fraunhofer, of Munich, by viewing through a telescope the spectrum formed from a narrow line of solar light with the finest prism of flint glass, discovered that the surface of the spectrum was crossed throughout its whole length by dark lines of different breadths. None of these lines coincide with the boundaries of the colored spaces. They are nearly 600 in number. The largest of them subtends an angle of from five seconds to ten seconds. From their distinctness, and the facility with which they may be found, five of these lines have been particularly distinguished by Fraunhofer. One of the important practical results of this discovery is that those lines are fixed points in the spectrum, or rather that they have always the same position in the colored spaces in which they are found. Fraunhofer likewise discovered in the spectrum produced by the light of Venus, the same streaks as in the solar spectrum; in the spectrum of the light of the star Sirius he perceived three large streaks, which according to appearance, had no resemblance to those of the solar spectrum; one of these was in the green, two in the blue. The stars appear to differ from one another in their streaks. The electric light also is found to differ somewhat from the light of the sun, and that of a candle, in regard to the spectral streaks. When the spectrum is formed by the sun's rays, either direct or indirect, as from the sky, clouds, rainbow, moon, or planets, the black bands are always found to be in the same parts of the spectrum, and under all circumstances to maintain the same relative position, breadth and intensities.

A very convenient instrument has been invented by Mr. John Browning called the "Miniature Spectroscope," by which, at any time, the solar spectrum may be observed in all its beauty of color; and the dark lines are easily seen by properly adjusting the width of the slit. When this is widely opened, the spectrum is more brilliant, because more light is admitted to the series of prisms contained in the instrument, but the lines are not then visible. By reducing the size of the aperture, it presents the appearance of striped ribbon, and is found to be crossed in the direction of its breadth by a number of dark lines. This instrument in the case measures four inches in length, and rather more than three-fourths of an inch in diameter; it is therefore easily portable in the pocket, and is thus kept ready for any special use, such for instance as observing the bright bands of color emitted by certain flames, or intensely hot gaseous matter, similar to that coming from the furnace in which the Bessemer pro-

cess is carried on; and it is by the employment of the spectroscope that the exact moment of the completion of the process for making steel or pure iron may be determined by a person skilled in the use of this instrument.

In order to properly distinguish the spectral lines, it is necessary to classify the spectra obtained from the different sources of light. Thus, the light obtained from the incandescence of two graphite electrodes by the voltaic battery, and called the "electric light," will, provided the graphite be middling pure, exhibit a continuous band of colors, perfectly free from all black lines. Such a spectrum teaches us nothing more than that light can be decomposed into seven colors. An observer looking at such a spectrum could not tell the exact source of the light, or say whether it was evolved by incandescent charcoal, lime, or platinum. Such a pure band of colors is called *a spectrum of the first order*. If a spirit lamp, burning pure and good spirit, is used as the source of heat, and a platinum wire, looped at the end, and dipped into a solution of common salt, is now held in the spirit flame, it changes yellow; and if the little hand spectroscope is directed towards it a yellow line is distinctly seen, whose position is toward the red end of the spectrum. When a more intense heat is used, such as the electric arc, the sodium line is double, and is then exactly coincident with the dark, double solar line known as Fraunhofer's (D) line. If nitrate or chloride of strontium be used, and placed, like the chloride of sodium, upon the looped platinum wire in the flame, and observed with the spectroscope, the colored bands are more numerous. There are eight remarkable lines, one blue band, one orange, and six red. All the metals and the salts which can be converted into *luminous* gas give bright lines instead of dark ones; and the various spectra obtained in this way are called *spectra of the second order.*

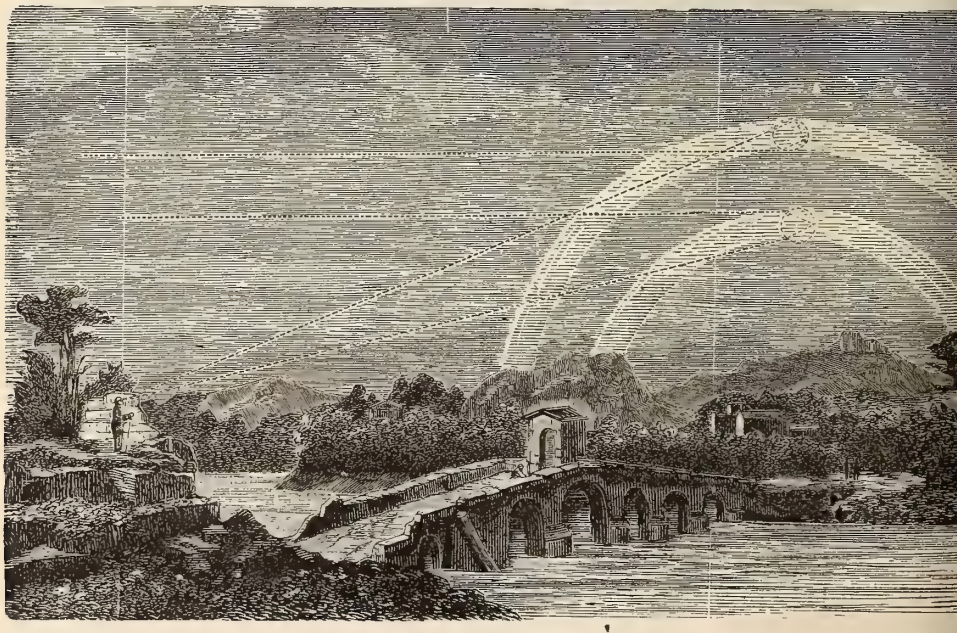
The fact that metals and their salts will always give the same colored bands invariably in some particular part of the spectrum, affords a most delicate measure of quantitative analysis, which is generally employed where the presence of a minute quantity of some metallic salt is suspected. By means of spectral analysis, the three-millionth part of a millogramme of soda can be easily detected, of lithium the nine-millionth part, of calcium the ten-thousandth part of a millogramme. The spark from the great induction coil, when passed through the air, is always of a light yellow color, and when examined by the spectroscope it gives the yellow line of sodium; and this is said to be supplied from the dust always floating in the air, which is continually supplied with particles of salt from the spray carried by the winds from the ocean.

There is but one more order to speak of; this is, *spectra of the third order*, of which the best type is the solar spectrum, crossed by black lines. "The spectra of this order," says Mr. Huggins, "consist of the spectra of incandescent, solid, or liquid bodies, in which the continuity of the colored light is broken by dark lines. These dark spaces are not produced by the source of the light. They tell us of vapors through which the light has passed on its way, and which have robbed the light by absorption of certain definite colors, or rates of motion. Such spectra are formed by the light of the sun and stars." If the light producing the yellow lines in sodium by the electric arc be allowed to pass through the vapor of metallic sodium, the yellow lines change to black lines. The sodium vapor absorbs the same kind of light as it emits; and it was by this remarkable discovery that Kirchoff identified many of the dark lines in the solar spectrum, with the bright lines obtainable from terrestrial substances; and ascertained that, in the solar atmosphere, there existed sodium, calcium, barium, magnesium, iron, chromium, nickel, copper, zinc, strontium, cadmium, cobalt, and hydrogen. If the evidence depended only on the coincidence of one or two dark solar lines with the bright bands from the vapors of the terrestrial metals, it would be worth little or nothing; but in a complicated series of sets of lines, such as would be produced by the above metals, *all the lines coincide;* and in speaking of one of those metals, Kirchoff remarks: "The observations of the solar spectrum appear to me to prove the presence of iron-vapor in the solar atmosphere, with as great a degree of certainty as we can attain in any question of natural science." Messrs. Huggins and Miller have continued observations with the planets, the stars, the nebulæ, and the comets, and have added largely to our knowledge of the constitution of these distant heavenly bodies.

The Rainbow.

At certain times, when there is a shower, either around us or at a distance from us, in an opposite direction to that of the sun, we see a kind of arch or bow in the sky, adorned with all the primary colors of light. This phenomenon, which is one of the most beautiful meteors in nature, is named the rainbow. The rainbow was for ages considered as an unexplainable mystery, and by some nations it is said to have been adored as a deity. Even after the light of modern science had begun to dispel the ignorance from the minds of men, it was a considerable time before any discovery of importance was made as to the true causes which co-operate in the production

of this phenomenon; and it was not until Newton discovered the different refrangibility of the rays of light, that a complete and satisfactory explanation could be given of all the circumstances connected with the rainbow. This beautiful meteor never makes its appearance to the spectator but when he is situated between the sun and the shower; and it is produced by the reflection and refraction of the rays of light from the falling drops of rain. It has been observed before that water is a transparent medium, and transmits the rays of light, refracting or bending them a little from the course they were pursuing before entering it; but while it transmits some rays of light, refracting them, it reflects others, both from its surface and inside its surface. There are usually two bows seen at the same time, one a little above the other, and encircling it; the inside one is called the *primary*, the outside the *secondary* bow. The secondary bow is usually much fainter in its colors than the primary. Now these bows are formed by the drops of rain in a given circle acting like prisms, and separating the rays of light, by refraction and reflection, into their prismatic colors; the red being lowest and the violet highest in the primary bow; and the violet lowest and red highest in the secondary. It has been shown from the experiments of scientific men, who possessed both the inclination and leisure for such pursuits, that the first or primary bow is produced by one reflection and two refractions of the ray of light in the drop of rain; and the secondary bow by two refractions and two reflections in the drop. In the first



case, the ray of light enters the drop from above, and on entering a new medium is, of course, refracted; it pursues its course in the drop, is reflected inside of it, and emerges from the same hemisphere of the drop as that in which it entered, and in emerging is refracted. Thus the ray is refracted in entering the drop, a new and denser medium; is reflected in the drop, the same medium; and is refracted again in emerging from the drop to the air, a different medium from the drop.

In the second case the ray strikes the drop rather on the lower, side, and is refracted on entering it; pursues its course to the other side of the drop on the inside, and is reflected from the lower part of the inside surface of the drop; is reflected again from the inside of the upper surface of the drop; and in emerging from the drop is refracted. Thus, as in the first case, the ray is refracted in entering the drop, a new medium; is reflected twice in the drop, the same medium; and in emerging to the air is again refracted. Hence in consequence of the two reflections in the drop in the last case the ray must in its course have described a four-sided figure, perhaps a square or a parallelogram. The same thing happens in the given circular space with respect to a whole shower as happens with respect to one or two drops; and by the constant falling of the rain the image is preserved constant and perfect. This subject may be partially illustrated in this way; take either a small solid glass globe or a small glass globe filled with water, and suspend it so high in the solar rays that the observer with his back to the sun can see the globe *red;* if it then be lowered slowly he will see it orange, then yellow, then green, then blue, then indigo, then violet; so that the drop of rain, as this, at different heights shall present to the eye of the observer the seven prismatic colors in succession. It must not be thought that any perceptible time is taken up in the refractions and reflections we speak of, as by which the rainbow is formed in the falling rain-drops, or in the lowering glass globe; the phenomenon is produced by the positions of the falling drops, or of the globe, in relation to our eye and to the sun. Fig. 93 illustrates the cause that produces the rainbow; the lower drop, or series of drops, representing the primary bow, the upper the secondary. The rainbow assumes a semi-circular appearance because it is only at certain angles that the refracted rays come to our eyes, as is evident from this experiment of the glass globe, which will reflect the different colored rays only in a certain position. The red rays make an angle of forty-two degrees two minutes; and the violet an angle of forty degrees and seventeen minutes. Thus if a line be drawn horizontally from the spectator's eye, it is plain that the angles formed with a

line of a certain dimension in every direction will produce a circle, as will appear by attaching a cord of a certain length to a given point, around which, as around an axis, it may turn; and in every point it will describe an angle with the horizontal line of a certain and determinate length. Now all the drops of water within the *difference* of these two angles, namely, one degree and forty-five minutes (supposing the ray to proceed from the centre of the sun), will exhibit severally the colors of the prism and constitute the interior bow of the cloud. This holds good at whatever height the sun may happen to be in a shower of rain. If he be at a high altitude the rainbow will be low; if at a low elevation, the rainbow must be high; and if a shower happen in a vale when the observer is on a mountain he will sometimes see the bow in the form of a *complete circle* below him. The largest angle, then, or circle, is formed by the red rays, the middle one the green, and the smallest the purple or violet. If the spectator alters his position, he will see a bow but not the same as before; and if there be many spectators they will see each a different bow, though it appears to be the same. If there were no ground to intercept the rain and the view of the spectator, the rainbow would form a complete circle whose centre is diametrically opposite to the sun. Such circles are often seen in the spray of the sea or of a cascade, or from the tops of lofty mountains when the shower happens in the vale below. Rainbows of various descriptions are frequently seen rising amid the spray and exhalations of waterfalls, and among the waves of the sea, whose tops are blown by the wind into small drops. There is one regularly seen when the sun is shining, and the observer in a proper position, at the Fall of Staubback, in the bosom of the Alps; one near Schaffhausen; one at the cascade of Lauffen; one at the Cataract of Niagara, and one at the Chaudiere Falls, Ottawa.

A more beautiful one than any of these is said to be seen at Terni, where the whole current of the river Velino, rushing from a steep precipice of nearly two hundred feet high, presents to the observer below a variegated circle, overreaching the fall, and two other bows suddenly reflected on the right and left. Don Ulloa, in the account of his travels in South America, relates that circular rainbows are frequently seen on the mountains above Quito, in Peru. A naval friend, says Mr. Bucke, informed me that as he was one day watching the sun's effect upon the exhalations near Juan Fernandez, he saw upwards of five-and-twenty *ires marinæ* animate the sea at the same time. In these marine bows the concave sides were turned upward, the drops of water rising from below, and not falling from above, as in the instance of aerial arches. Rainbows are also occasion-

ally seen on the grass in the morning dew, and likewise when the hoar-frost is descending. Dr. Langwith once saw a bow lying on the ground, the colors of which were almost as lively as those of a common rainbow. It was not circular, but oblong, and was extended several hundred yards. The colors took up less space and were much more vivid in those parts of the bow which were near him, than in those which were at a distance. When M. Labillardière was on Mount Teneriffe, he saw the contour of his body traced on the clouds beneath him, in all the colors of the solar bow. He had previously witnessed this phenomenon on the Kesrouan, in Asia Minor. The rainbows of Greenland are said to be frequently of a pale white, fringed with a brownish yellow, arising from the rays of the sun being reflected from a frozen cloud.

A rainbow may be produced at any time by artificial means, when the sun is shining, and not at too great an altitude above the horizon. This is effected by means of artificial fountains, which are intended to throw up streams of water to a great height. These streams, when they spread very wide and blend together in their upper parts, form, when falling, an artificial shower of rain. If, then, when the fountain is playing, we move between it and the sun to a proper distance from the fountain, until our shadow points directly toward it, and look at the shower, we shall observe the colors of the rainbow strong and lively; and what is especially noticeable, the bow appears, notwithstanding the nearness of the shower, to be as large and as far off as the rainbow which we see in a natural shower of rain. The same experiment may be made with candle-light and with any instrument that will form an artificial shower.

The following is a summary of the principal facts which have been ascertained respecting the rainbow: 1. The ordinary rainbow can only be seen when it rains, and in that part of the heavens opposite to the sun. 2. Both the primary and secondary bows are variegated with all the prismatic colors, the red being the highest color in the primary, or brightest bow; and the violet the highest in the secondary or exterior bow. 3. The primary rainbow can never be a greater arc than a semicircle; and when the sun is set no bow in ordinary circumstances can be seen. 4. The breadth of the inner or primary bow, supposing the sun but a point, is one degree and forty-five minutes; and the breadth of the exterior bow three degrees and twelve minutes, which is nearly twice as great as that of the other; and the distance between the bows is eight degrees and fifty-five minutes. But since the body of the sun subtends an angle of about half a degree, by so much will each bow be increased, and their distance diminished; and, therefore, the breadth of the interior bow

will be two degrees, fifteen minutes; and that of the exterior three degrees, forty-two minutes; and their distance eight degrees, twenty-five minutes. The greatest semi-diameter of the interior bow, on the same grounds, will be forty-two degrees, seventeen minutes; and the least of the exterior bow fifty degrees, forty-three minutes. 5. When the sun is in the horizon, either in the morning or evening, the bows will appear complete semicircles. On the contrary, when the sun's altitude is equal to forty-two degrees, two minutes, or to fifty-four degrees, ten minutes, the summits of the bows will be depressed below the horizon. Hence, during the days of summer, within a certain interval each day, no visible rainbows can be formed, on account of the sun's high elevation above the horizon. 6. The altitude of the bows above the horizon, or surface of the earth, varies according to the elevation of the sun. The altitude at any time may be taken by a common quadrant, or any other angle-measuring instrument; but if the sun's altitude at any particular time be known, the height of the summit of any of the bows may be found by subtracting the sun's altitude from forty-two degrees, two minutes, for the inner bow; and from fifty-four degrees, ten minutes, for the outer. Thus, if the sun's altitude be twenty-six degrees, the height of the primary bow would be sixteen degrees, two minutes; and that of the secondary bow twenty-eight degrees, ten minutes. It follows that the height and the size of the bows diminish as the altitude of the sun increases. 7. If the sun's altitude be more than forty-two degrees, and less than fifty-four, the exterior bow may be seen, though the interior one is invisible. Sometimes only a portion of an arch will be visible, while all the other parts of the bow are invisible. This happens when the rain does not occur in a space of sufficient extent to complete the bow; and the appearances of the position, and even of the bow itself, will be various, according to the nature of the situation, and the space occupied by the rain.

Lunar rainbows are sometimes formed at night by the rays of the moon striking on a rain-cloud, especially when the moon is about at its full; but such phenomena are not often observed. Aristotle is said to have considered himself the first who saw a lunar rainbow. These bows appear distinct and well-defined, but the prismatic colors are usually not very distinct. They may be all distinguished by attending to the phases and position of the moon. If the moon be not visible above the horizon, if she be in her first or last quarter, or if an observed phenomenon is not in a direction opposite to the moon, we may conclude with certainty that whatever appearance is presented no lunar rainbow appears. The writers of the Bible frequently allude to the rainbow as one of the emblems of the majesty and glory

of the Deity. Ezekiel represents the throne of the Almighty as adorned with a brightness "like the appearance of a bow that is in the cloud in the day of rain; the appearance of the likeness of the glory of Jehovah." And in the visions recorded in the book of Revelation, where the Most High is represented as sitting on a throne, it is said: "there was a rainbow round about the throne, in sight like unto an emerald," an emblem of his glory, and holiness, as well as of his propitious character, as there represented. In the apocryphal book of Ecclesiasticus it is alluded to by the son of Sirach after this manner: "Look upon the rainbow, and praise him that made it; very beautiful it is in the brightness thereof. It compasseth the heavens about with a glorious circle, and the hands of the Most High have bended it."

ON COLORS; AND OTHER EFFECTS OF LIGHT.

The common theory supposes or represents that colors are inherent in light alone; whereas it is evident light only makes manifest what exists in something or everything else. The principles of light, of colors, and of heat co-exist in everything. Burn a stick of wood and you obtain a blaze, from which you can derive all the prismatic colors; you derive light, heat, electricity, and colors, from the same bit of fuel. Light is that manifestation of matter which opens up to us the universe, displays to us all other objects, and is an object itself for us to experiment upon. Thus we can experiment upon the properties of light, as well as upon all other things by means of light. It is essential to the existence of all vegetables and animals; and this is a proof that the solar light has always existed as now, and, therefore, that all colors have always been displayed. It is, however, strictly true, that without light there would be no colors; although they existed in principle everywhere and in everything. All colors, therefore, are dependent upon light. Of all the phenomena which vegetables exhibit, there are few that appear more extraordinary than the energy and constancy with which their stems incline towards the light. Most of the discous flowers follow the sun in his course. They attend him to his retreat in the evening, and meet his rising lustre in the morning, with the same unerring law. They unfold their petals on the approach of this luminary; they follow his course by turning on their stems, and close them as soon as he disappears. Also, if a plant be shut up in a dark room, and a small hole be afterwards opened, by which the light of the sun may enter, the plant will turn towards that hole, and even alter its shape, in order to incline towards it; so that though it was straight before, it will

in time become crooked, that it may get near the light. Vegetables placed in rooms where they receive light only from one direction always extend themselves in that direction. If they receive light from two directions, they incline rather towards that which is strongest. It seems to be rather the light than the heat of the sun which the plant thus covets; for though a fire be kept in the room capable of giving out a much stronger heat than the sun gives there, the plant will turn away from the fire, in order to enjoy the solar light. Trees growing in dense forests, where they receive most of their light from above, direct their shoots almost invariably upward, and, therefore, become much taller and less spreading than such as stand single; they are also more intensely green toward the tops. The green color of vegetables is found to depend upon the sun's light being allowed to shine on them; for without the influence of the solar light they are always of a whitish aspect. It is found by experiment that if a plant which has been reared in darkness, is exposed to the light of day, in two or three days it will acquire a green color perceptibly similar to that of plants grown in open daylight. If we expose to the light one part of the plant whether leaf or branch, this part alone will become green. If we cover any part of a leaf with an opaque substance, this part will remain white, while the rest becomes green. The whiteness of the inner leaves of cabbages is a partial effect of the same cause; and any one may produce many other examples of the same kind. M. Decandolle, who seems to have paid particular attention to this subject, makes the following remarks: "It is certain that between the white state of plants vegetating in darkness and complete greenness, every possible intermediate degree exists, determined by the intensity of the light. Of this, any one may easily satisfy himself by attending to the color of a plant exposed to the full daylight; it exhibits in succession all the degrees of verdure. I had already seen the same phenomenon in a particular manner by exposing plants reared in darkness to the light of lamps. In these experiments, I not only saw the color come on gradually, according to the continuance of the exposure to light, but I satisfied myself that a certain intensity of permanent light never gives to a plant more than a certain degree of color. The same fact readily shows itself in nature, when we examine the plants that grow under shelter or in forests, or when we examine in succession the state of the leaves that form the heads of cabbages. * "

It is likewise found that the perspiration of vegetables is increased or diminished in a certain measure by the degree of light which falls upon them. M. Guetard informs us that a plant exposed to the rays

* Memoires de la Société d'Arencil.

of the sun has its perspiration increased to a much greater degree than if it had been exposed to the same heat inside the shade. And, it is said, the experiments of Mr. P. Miller, and others, go to prove that plants uniformly perspire most in the forenoon, though the temperature of the air in which they are placed should be unvaried. Vegetables are likewise found to be indebted to light for their smell, taste, and combustibility, maturity, and the resinous principles which equally depend upon it. The aromatic substances, resins, and volatile oils, are the productions of Southern climates, where the light is more pure and intense. Another remarkable property of light on the vegetable kingdom is, that when vegetables are exposed to open daylight, or to the sun's rays, they emit oxygen gas, or vital air. It has been proved that in the production of this effect the sun does not act as a body that heats. The emission of the gas is determined by the light; the pure air is, therefore, separated by the action of light and the operation is stronger as the light is more intense. By this continual emission, the atmosphere is continually purified, and the loss of pure air occasioned by respiration, combustion, fermentation, putrefaction and numerous other processes which have a tendency to vitiate this fluid, so essential to the maintenance and vigor of animal life, is repaired; so that in this way, by the agency of light, a due equilibrium is always maintained between the constituent parts of the atmosphere.

It is evident that colors exist but in principle, except for the agency of light; and it is owing to the surfaces of bodies being disposed to reflect certain colors rather than others that we have such a variety of colors. When the disposition is such that a body reflects every kind of ray in the mixed state in which it receives them, that body appears white to us, which properly speaking, is no color, but rather the combination of all the colors. When a body absorbs nearly all the light which falls upon it that body appears *black;* it transmits to the eye so few reflected rays that it is scarce perceptible in itself, and its presence and form make no impression upon us unless as it interrupts the brightness of the surrounding space. Black is therefore the absence of all colors. If the body has a fitness to reflect one sort of rays more abundantly than others, by absorbing all the others, it will appear of the color belonging to that species of rays. Thus, the grass is green because it absorbs all the colors except green. It is the green rays only which the grass, the foliage of the trees and shrubs, and all the other verdant parts of the landscape reflect to our sight, and which make them appear green. In the same manner the different flowers reflect their respective colors; the rose the red rays; the jonquil the yellow; the marigold

the orange; and every object whether natural or artificial, appears of the color which its peculiar texture is adapted to reflect. A great number of bodies are fitted to reflect at once several kinds of rays, and consequently they appear under mixed colors. It often happens that of two bodies which are green, for example, one may reflect the green of light and the other the mixture of yellow and blue. This quality, which varies to infinity, occasions the different kinds of rays to unite in every possible manner and every possible proportion; and hence the inexhaustible variety of shades and hues which is seen diffused over the scene of creation.

Every object is black or colorless in perfect darkness, and it only appears colored as soon as light renders it visible. This will become more plain from the following experiment. If we place a colored body in one of the colors of the spectrum which is formed by the prism, it appears of the color of the rays in which it is placed. Take, for illustration, a red rose, and expose it first to the red rays, and it will appear of a more brilliant, ruddy hue; hold it in the blue rays and it appears no longer red, but of a dingy blue color; and in like manner its color will appear different when exposed to all the other differently colored rays. This is the reason why the colors of objects are altered by the nature of the light in which they are seen. The colors of ribbons, of cloths, of silks, or woollen stuffs, are not exactly the same when viewed by candle-light as in the day time. In the light of a lamp or a candle, blue sometimes appears green, and yellow objects assume a whitish aspect. The reason is that the light of a candle or of a lamp is not as pure a white as that of the sun, but has a yellowish tinge, and therefore, when refracted by the prism, the yellowish rays are found to predominate, and the superabundance of yellow rays gives to blue objects a greenish hue. The following experiment, as described by Sir D. Brewster, may further illustrate our subject: "Having obtained the means of illuminating any apartment with yellow light, let the exhibition be made in a room with furniture of various bright colors, and with oil or water-colored paintings on the wall. The party which is to witness the experiment should be dressed in a diversity of the gayest colors, and the brightest-colored flowers and highly-colored drawings should be placed on the tables. The room being at first lighted with ordinary lights the bright and gay colors of everything that it contains will be finely displayed. If the white lights are now suddenly extinguished, and the yellow lamps lighted, the most appalling metamorphosis will be exhibited. The astonished individuals will no longer be able to recognize each other. All the furniture of the room, and all the objects it contains, will exhibit only one color. The flowers will lose their hues; the

paintings and drawing, will appear as if they were executed in China ink; and the gayest dresses, the brightest scarlets, the purest lilacs, the richest blues, and the most vivid greens, will be converted into one monotonous yellow. The complexions of the parties, too, will suffer a corresponding change. One pallid, death-like yellow, like the unnatural hue which 'Autumn paints upon the perished leaf,' will envelope the young and the old; and the sallow face will alone escape from the metamorphosis. Each individual derives merriment from the cadaverous appearance of his neighbor, without being sensible that he is one of the ghastly assemblage."

From such experiments we might conclude that were the colors of the solar spectrum different from what they are, the colors which adorn the face of nature and embellish the landscape of the world would be of another aspect, and appear very different from what we are now accustomed to behold. Some of the distant stars appear to display light different in color from solar light; and hence some have concluded that the coloring thrown upon the different scenes of the universe may vary somewhat in different systems, and that, along with other arrangements, an infinite variety of coloring of scenery may be displayed thoughout the immensity of creation. The different coloring, however, which these distant stars appear to exhibit may arise from complementary colors, which we shall soon come to consider. The atmosphere, in consequence of its refractive and reflective powers, is the source of a diversity of colors which frequently embellish and adorn the aspect of our sky. The atmosphere reflects the blue rays most plentifully, which is the cause of its blue aspect, and must, therefore, transmit the red, orange, and yellow more copiously than the other rays. When the sun and other heavenly bodies are at a high altitude their light is transmitted without any perceptible change to the earth's surface; but when they are near the horizon their light has to pass through an extended tract of dense air, and must therefore, be considerably modified by reflection before it reaches the eye of the observer. If the light of the setting sun, by thus passing through a long tract of dense air, be divested of its green, blue, indigo, and violet rays, the remaining rays which are transmitted through the atmosphere will illuminate the western clouds, first, with an orange color, and, then, as the sun gradually sinks below the horizon, the track through which the rays must pass becoming longer, the yellow and orange are reflected, and the clouds grow more deeply red, until at length the departure of the sun leaves them of a leaden hue, by the reflection of the blue light through the air. Similar changes may sometimes be seen on the eastern and western front of white buildings. From such atmospherical refractions and reflec-

tions those beautiful and varied hues are produced with which our western sky is gilded by the setting sun, and the glowing red which tinges the morning and evening clouds, until their ruddy glare as tempered by the purple of twilight, and the reflected azure of the sky. When a direct spectrum is thrown upon colors darker than itself it mixes with them, as the yellow spectrum of the setting sun, thrown on the verdant grass, becomes a greener yellow. But when a direct spectrum is thrown on colors brighter than itself it becomes instantly changed into the reverse spectrum, which blends with these brighter colors. Thus, the yellow spectrum of the setting sun thrown on the luminous sky becomes blue and changes with the color or brightness of the clouds on which it appears. The red rays of light being capable of appearing through thick and resisting media which intercept all other colors is likewise the cause why the sun appears red when seen through a fog; why lamps at a distance, seen through the smoke of a large street, are red, while those near by are white. To the same cause it is owing that a diver at the bottom of the sea is surrounded with the red light which appears through the superincumbent fluid, while the blue light is reflected from the surface of the water.

Complementary, or Accidental, Colors.

When the eye is impressed with a brilliant light or color, after it has been removed, the retina of the eye remains for a short time impressed with a color which is usually complementary to the one first observed. Complementary colors mean any two colors which will, when combined, form white light; in short, any two colors which contain red, yellow, and blue. Thus, a brilliant yellow light would leave upon the eye the impression of violet-colored light, composed of red and blue; a green would leave a reddish violet; a red a bluish green; a black a white; a white a black; an orange a blue; a blue an orange red; indigo an orange yellow; and violet a yellow green. This can be illustrated by placing some strips, say of red paper, in the form of a cross on a sheet of white cardboard. If the oxyhydrogen light is projected from a lantern with condenser lenses on to the red cross, and the spectator directed to watch it steadily, on suddenly removing the card with the red cross, and having another white card behind it, it will usually be noticed that nearly all those who are watching the experiment will exclain that they see a green cross, faint green of course, but still quite sufficiently defined to enable them to determine that it is so. If instead of the red cross green be employed, red remains visible, and black, as already stated, becomes white.

These effects are described by Sir D. Brewster, under the name of "Accidental colors;" and he appears to regard them as synonymous with the term already explained, that is, complementary colors. He thus explains the phenomena; "When the eye has been for some time fixed on the red cross, the part of the retina occupied by the red image is strongly excited, or, as it were, deadened by its continued action. The sensibility of red light will therefore be diminished; and, consequently, when the eye is turned from the red cross to the white card, the deadened portion of the retina will be insensible to the red rays which form part of the white light of the paper, and consequently will see the paper of that color which arises from all the rays in the white light of the paper, but the red; that is, of a bluish green color, which is therefore the true complementary color of the red cross." "When a black cross is placed on a white ground, the portion of the retina on which the black image falls in place of being deadened is protected, as it were, by the absence of light, while all the surrounding parts of the retina, being excited by the white light of the paper, will be deadened by its continual action. Hence when the eye is directed to the white card, it will see a white cross, corresponding to the black image on the retina; so that the accidental color of black is white." For the same reason if a white cross is placed on a black ground and viewed steadily for some time, the eye will always see a black cross; so that the accidental color of white is black. The same author remarks: "It is not, however, necessary that the eye should be strongly impressed previously by some colored light, as the phenomena of accidental colors are sometimes seen without it."

He states that in order to see this class of phenomena, he found the following method the simplest and the best: "Having lighted two candles hold before one of them a piece of colored glass, suppose bright red, and remove the other candle to such a distance that the two shadows of any body formed upon a piece of white paper may be equally dark. In this case one of the shadows will be red and the other green. With blue glass, one of them will be blue and the other orange-yellow, the one being invariably the accidental or complementary color of the other. The very same effect may be produced in daylight by two holes in a window-shutter; the one being covered with colored glass, and the other transmitting the white light of the sky."

Mr. Rose, in a paper on "Persistence," in which he describes experiments devised and carried out by himself shows that with no color whatever to look upon, and only gazing on a white card, while the starry light falling on it is gradually reduced and restored, the

white appearance of light passes into the various gradations of colored light. He thus describes this very interesting experiment: "An intensely white card is held before the eye, whilst a strong light, falling on it, is gradually reduced and restored. As the light is reduced the whiteness passes into yellow orange, red, and sometimes thence into blue. Whilst at other times colors intermediate between the red and blue are apprehended, the gradual reduction of the light brings up the color by successive steps, and in reverse order to whiteness. All eyes, as might be expected, are not affected alike by these experiments; but all see whiteness passing into yellow, orange, and blue; and blue returning back in deep orange, yellow, and white. The restoration of the light is on the whole less satisfactory than its reduction, for when by reduction a deeply intense blue is obtained the light cannot, to some eyes, be restored slowly enough to prevent a sudden change to deep orange. The colors that succeed each other as the light is gradually reduced have none of the accepted relations between any given color and its complement. The white is not succeeded by thin blackness, the yellow by faint purple, or the orange invariably by blue; but the different hues do come up in an order that suggests the great probability that *what we name colors is only the various affection of the optic nerve by a greater or less quantity of light radiating from a focal point in an imperfect reflector.*" It is said the above experiment was the result of accident. Mr. Rose had been looking upon a white surface lying near a powerful gaslight, when his arm having caught the tap and reduced the light, his attention was drawn to a sudden change from white to red color.

Another experiment of great beauty and interest was also suggested to him by an accidental circumstance. He was observing the effect of flashes of intermittent, artificial light on a revolving disc, having twelve large circular black spaces, ranged equidistantly around the margin. It was broad day, and the window-shutters were closed to exclude the natural light. While the experiment was going on the shutter accidentally started open, and admitted a little daylight, when the remarkable appearance was presented of twelve blue circular spaces, lying upon a zone of bright orange. Mr. Rose regarded this at the time as simply the presentation of a complementary color, under singular conditions which kept it permanently before the eye; but as leisure afforded him opportunity to repeat the experiment, he soon began to perceive that he had taken far too limited and narrow a view. This misconception arose out of a fact connected with the painting of the discs. He found that lampblack alone would not give the depth and intensity required in the devices, and to remedy the defect he added a little indigo. The circular

spaces, to the eye, were certainly intense black, and nothing more; but he considered that they had a tendency to blueness, and that under the rotation they were reduced to a lighter blue, and drew after them trains of complementary orange, in the same way that a black fly, walking across a pane of ground glass, backed by gray light, is seen to draw a white spectrum after him.

But he dismissed this idea as soon as he found that absolute unmixed black produced the same effect, and that the nearer the artificial light approached to intensity of whiteness, the more decided and satisfactory was the result. But how is this effect to be explained? Mr. Rose goes on to say: "The diffused light of the zone is continually falling upon the eye; but the intermittent flashes find the negations or black portions always in the same areas, and hence from the spaces no part of the flash is reflected, whilst it mingles with, and adds to, the diffused light in the spaces between the negations. Now the diffused light is, we assume, intense light reduced by distribution to blueness; and in this blueness the negative spaces participate; but in the rest of the zone the flash brings up the light in such quality in relation to space as is necessary for the presentation of orange. We have more light from diffusion at the outer and inner edges than at the centre of the zone or ring, and hence the light blue at the inner margin, and the light blue, passing into green, at the outer margin. This common quality of the zone is shown in the negative spaces. But from the intervals between them there comes the diffused light variously affected by the flash, and conveying the graduated tints of orange." Mr. Rose thinks this explanation of the subject will appear reasonable, if the conditions of the action are thoughtfully considered. Eight circular spaces of absolute blackness produce under rotation and by persistence a nebulous ring. "If," he says, "this is to be viewed as a mixture of light and shadow, or of black and white, we cannot explain the manner of its affection by the intermittent light, which shows the apparently stationary negations as blue, and the remainder of the zone as orange. But if we regard the black spaces as utter absence of light, reducing the quantity of light for distribution over the zone, but giving it no quantity by admixture, all difficulty is at an end. A quantity of light is then understood to be diffused, over a certain space, whence it comes modified to blueness; and when this reduced light receives the impression of the flash, it is increased in relation to surface, and raised to orange."

In the "Edinburgh Journal of Science" Mr. Smith has described a very curious instance of the change of white light into complementary tints. In his directions for the performance of this exper-

iment he tells the operator to hold a strip of white cardboard upright about twelve inches from the eyes. The card may be six inches long, and a quarter of an inch wide. If the eyes are now fixed upon some object at a distance of ten or twelve feet behind it, so that the card becomes doubled, and a lighted candle is now placed close to the right eye, and shaded from the left one, the latter will see the white strip of card *green*, while the former will appreciate the complementary color or red. On changing the candle so that the light falls upon the left eye the phenomena are reversed. We shall conclude this part of our subject, on the persistence of vision and its illusions, by presenting a general summary of the effects. 1. *Persistence* is the retention of an image by the eye not for an absolute instant, but for an interval,—an interval sufficiently long for an object to pass over a succession of points, in all of which it will be apprehended by the eye at the same instant. For illustration, a lighted stick whirled round rapidly in a circle presents a ring of light, because the eye retains an impression of the light at any given point, until the stick has returned to the same point again. 2. *Simple Persistence* presents only illusions of the simplest character, as the commingling of the elements of white light, the composition of color, etc. 3. *Persistence under Conditions of Interrupted Vision* offers an indefinite variety of illusions, depending upon the fact that a disc in rapid revolution, presenting the points in the circumference only for an instant to the eye, is virtually stationary; and any object situated in these points is distinctly seen, because of its making no sensible advance during the exceedingly brief interval of its apparitions. 4. *Disc Action* presents the illusions of vision under various arrangements, in which discs revolving with different degrees of velocity, and bearing multiform devices, impress the eye with a number of images at virtually the same instant. 5. *Single Disc Action* is tolerably well known in its application to ordinary optical instruments, and as the vehicles for the amusements presented in the thaumatrope, etc. The single action has this advantage in connection with the thaumatrope and kindred devices, that it shows true form, and does not make anamorphoses or distorted figures; in one point of view confused, in another exact and regular. 6. *Double Disc Action* produces, under certain arrangements, an almost unlimited variety of illusions. The double disc movement, as arranged by Mr. Rose, consists of two wheels, one of which receives a disc bearing the devices, and the other a black disc perforated with a number of slots or slits. The wheels revolve in contrary directions, and their relative velocities can be varied at pleasure within certain limitations. In these illusions the aim is at something higher than a mere optical

toy; the double disc action will be more estimable since it presents the most interesting illustrations of recondite optical principles, and also examples of compound motion, multiplication, involution, and combinations of the most attractive and pleasing character.

Color is that property of light to which the universe is indebted for the beauties and sublimities with which it is adorned. It is color, in all its diversified shades, which presents to the view of intelligent beings that almost infinite variety of aspect which the scenes of nature display, which directs the eye and the imagination, and gives a pleasing variety to every new landscape we behold. Every flower which adorns our fields and gardens presents its various hues; every landscape presents its shrubs and trees of different degrees of intensity of verdure; and almost every mountain is covered with herbs and grass of different shades from those which are seen on the hills and plains surrounding it. In the rural districts during the summer nature is daily varying her appearance by the multitude and diversity of her hues and decorations, so that the eye rambles with pleasure over objects continually diversified, and extending on all sides as far as the sight can reach. In the flowers which deck every landscape, what an admirable assemblage of colors, and what a wonderful art in the disposition of their shades does nature display. Here appears a light pencilling of delicate tints; there they are blended in a manner surpassing the nicest rules of the most exquisite art. Although green is the general color which prevails over our earthly scene, yet it is diversified by a thousand different shades, so that every kind of tree, shrub, and herb, is covered with its own peculiar verdure. The dark green of the forests is thus easily distinguished from the lighter shades of corn-fields, and the verdure of the pastures.

The world of animated nature also displays a great variety of beautiful colors. The plumage of birds; the brilliant feathers of the peacock and the guinea-fowl, of the robin, the goldfinch, and the humming-bird, and the various embellishments of many species of the insect class, present to the eye in every region of the globe an interesting scene of diversified beauty. Nor is the mineral kingdom destitute of such beauties of color, for not only all crystals, and precious stones, but some of the roughest and unshapeliest stones and minerals, when polished artificially, display a mixture of the most delicate and variegated colors. Now all these beauties in the scene around us are owing to that property in the rays of light by which they can be separated into their primary colors. To the same cause are to be attributed those beautiful and diversified appearances, which frequently adorn the face of the heavens, the yellow, orange and ruby hues which embellish the sky at the rising and setting of

the sun, and those aerial scenes so frequently beheld in tropical climes, where rivers, houses, and mountains are depicted as rolling over each other along the circle of the horizon. The clouds, particularly in some countries, reflect almost every shade of color in nature; sometimes they are of a roseate hue; sometimes they appear like bands of deep vermilion: and sometimes like huge brilliant masses heaped one upon another and tinged with various hues; now they are white, like ivory; now as yellow as native gold. In short, color diversifies every scene with which we are acquainted, whether on the earth or in the heavens. It imparts beauty to the rainbow, to the coruscations of the Aurora Borealis, and gives a splendor and sublimity to the spacious vault of heaven.

But let us consider for a moment what the aspect of nature would be if instead of the beautiful diversity of embellishment which now appears on every side one uniform color were spread over the scenery of the universe. Conceive the whole of terrestrial nature to be covered with snow, so that no object on earth appeared of any other hue; and that the vast expanse of the sky presented the same uniform aspect; what would be the condition of human beings, supposing them existing in such a world? The light of the sun would be strongly reflected from every object within the bounds of our horizon, and would produce such illumination as would dazzle every eye. The day would exhibit a greater brightness than it now does; and our eyes, having become accustomed to it, might be enabled freely to expatiate on the surrounding landscape; but everything, though enlightened, would appear confused, and particular objects would scarcely be distinguishable. A house or a tree near at hand might possibly be distinguished on account of its elevation above the general level of the ground, and rivers, and valleys, and other hollow places, by reason of their being depressed below it. But we should be obliged rather to guess and conjecture as to the particular objects we wished to distinguish than be able to arrive at any certain conclusion concerning them; and if objects lay at a considerable distance from us it would be impossible for us with any degree of probability to distinguish one object from another. Notwithstanding the universal brightness of the scene the uniformity of color of every object would certainly prevent us from easily distinguishing them from one another. In such a condition human beings would be confounded, and friends and neighbors be at a loss to recognize each other!

The heavens, too, would wear a uniform aspect; neither the moon nor planets would be visible to the eye, nor those numberless stars which now shine with such brilliancy and adorn the nocturnal sky;

for it is by the contrast produced by the white radiance of the stars, and the deep azure of the sky, that those distant bodies are rendered discernible. Were they depicted on a snow-white ground they would not be distinguishable from that ground, and consequently would be invisible.

Of course, all that beautiful variety of aspect which now appears on our terrestrial scene,—the rich verdure of the fields, the dark green foliage of the stately forest trees, the rivers meandering through the valleys, and the splendid hues which variegate and adorn our gardens and meadows, the gay coloring of the morning and evening clouds, and all that variety which distinguishes the different seasons,—would not at all appear. As every landscape would exhibit nearly the same aspect, the poet, the philosopher, the antiquarian, the scholar, or the man of science, would have no inducement to visit distant countries to investigate the scenes of nature or the productions of art; and tours from one region of the earth to another would scarcely be productive of enjoyment.

The prevalence of any other single color would be attended with nearly the same results. Were a deep red to be uniformly spread over the scene of nature, it would not only be disagreeable to the eye, but prevent all distinction of objects. Were a dark blue or a deep violet to prevail, similar effects would follow, and the scene of nature would present a dismal and gloomy appearance. Even if all nature were arrayed in a robe of green, which is a more pleasing color to the eye, were it not diversified with the different shades which it now exhibits, every object would be equally undistinguishable. Such would be the aspect of nature and the inconveniences to which human beings would be doomed, were it that the light which shone upon them was without that intermixture of colors which now appears over the face of all nature, and which serves to discriminate one object from another. Even our domestic apartments could not be decorated in the least degree, and the articles with which they would be furnished would be almost undistinguishable, so that in discriminating one object from another, we would be as much indebted to the sense of touch as to the sense of sight. But worst of all would be the numerous delays, uncertainties, and perplexities to which we should be subjected, were we under the necessity every moment of distinguishing objects by trains of reasoning, and by circumstances of time, place, and relative position. An artificer, when commencing his work in the morning, with his numerous tools of nearly the same size and shape, would have to spend a considerable portion of his time before he could select those he wanted to use, or the objects to which he wanted to apply them;

and in every department of society, and in all intercourses of persons by travel from one place to another, similar inconveniences and perplexities would occur. People would have to spend one-half their time in uncertain guesses and perplexing reasonings respecting the real nature and individuality of objects, rather than in a consecutive train of thought, or a regular employment; and after all the perplexities and conjectures they must remain in the utmost uncertainty and ignorance of the thousands of scenes and objects which are now obvious through the instrumentality of colors.

For the existing state of things in the visible universe, and for thus enabling us to distinguish objects by such an easy and expeditious mode as that of color, which in a moment distinguishes every object and its several relations, we cannot but admire the wisdom and goodness of the Creator! We rise in the morning to our respective employments, and our tools, our books, and whatever is necessary for our subsistence and comforts, are at once discriminated. Without the least hesitation, and without any perplexing process of reasoning, we can lay our hands upon whatever article we require. Color clothes every object in its peculiar livery, and infallibly directs the hand in its movements, and the eye in its surveys and observations. But this is not the only end which is answered by the diversity of colors. They minister largely to our pleasures as well as to our wants. To those favored with a refined taste, as well as to almost every human being, the exquisite coloring of flowers, the delicate tints with which they are painted, the varied shades of green with which the hills and dales, the mountains and valleys, are arrayed, and that beautiful variety which appears on a bright summer's day on all the objects of universal nature, are sources of the purest enjoyment and delight. Color, too, as well as magnitude, adds to the sublimity of objects. Were the canopy of heaven of one uniform color, it would not produce those lofty conceptions, and those delightful and transporting emotions, which a contemplation of its august scenery never fails to inspire. The colors displayed in the solar light are common to all the globes which compose the solar system, and must necessarily be reflected in all their diversified hues from all objects on their surfaces. Some of the double stars appear to emit light of different hues, which is thought by some astronomers to arise from complementary colors. The larger star sometimes exhibits light of a ruddy or orange hue, and the smaller one a radiance which approaches to blue or green. There may, therefore, be some reason to conclude that the objects connected with the planets which revolve around such stars, being occasionally enlightened with suns of different hues, display a more diversified and splendid scenery

of coloring than is ever beheld in our world; and that one of the distinguishing characteristics of different worlds in regard to their embellishments may consist in the variety and splendor of colors with which the objects connected with them are adorned.

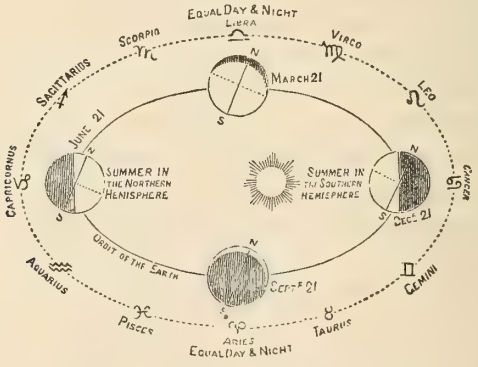
It need not be inferred from what has been said, that we intend to convey the idea that the light, or colors which human beings have experienced in any past time were ever different to what we find them now to be. We believe, on the contrary, that light has always been what it is now, and that it has always displayed a great variety of colors. Moreover, light, with its inherent colors, is a creation in the same sense as any other object is; and in the same sense as any other natural object, it is an eternally created thing; that is to say, it has always been and always will be, created. It is a new manifestation or combination of matter, as a man, or a tree, or any other natural object is a new manifestation or combination of matter. It is everywhere present in principle, and is always manifested wherever the conditions necessary for that manifestation exist. In this, as well as in many other arrangements in nature, we have a sensible proof of the presence and agency of that Almighty Intelligence in whom we live, and move, and have our being. None but an infinitely wise and beneficent Being, intimately present in all places, could thus so regularly create in us, by means of color, those exquisite sensations which afford us so much delight, and which unite us, as it were, to everything around us. In the variety of hues spread over the face of creation we have as real a display of the Divine presence as Moses contemplated at the burning bush. The only difference is, that the one was out of the common order of Divine procedure, while the other is in accordance with those permanent laws which regulate the economy of the universe. In every color which we contemplate we have a sensible remembrancer of the presence and benevolence of that Being whose spirit hath garnished the heavens and the earth, and by whose power and agency we are every moment sustained in existence. Oh that men would, therefore, praise the Lord for his goodness, and for his wonderful works to the children of men! He giveth rain to the evil and the good, and causeth his sun to shine upon the just and upon the unjust!

ON ASTRONOMY.

The object of the science of Astronomy is to explain the motions and magnitudes of the earth and the heavenly bodies, their various aspects, and other facts which have been ascertained concerning them. It is a science that has to do with our subject, since it illus-

trates the changes of place effected in the earth and the heavenly bodies by their motions; gives the mind a more expansive idea of the infinite Creator, and gives it to understand that it cannot possibly comprehend the mode of existence of that Being who is everywhere present in essence and power, amid such varied and complex changes and revolutions.

It will first be expedient for us to say a few words in relation to the apparent motion of the heavenly bodies during the day and night, and as to the form and motions of the earth, before proceeding to describe particularly the phenomena of the other heavenly bodies. When we look up toward the sky, we perceive an apparent concave hemisphere, placed at an indefinite distance from us, and surrounding the earth on every side. During the day the principal luminous object that appears in this hemisphere is the sun. In the morning we see him rise beyond the distant mountains or the extremity of the ocean; he gradually ascends the vault of heaven, and then declines and disappears in the opposite quarter of the sky. In the northern parts of the globe, where we reside, if, about the 20th of March, we place ourselves in an open plain at about six o'clock in the morning, with our face toward the South, the sun will appear to rise on our left, or due East, and at about the same hour in the evening he will set on our right hand, or due West. This time is called the *Vernal Equinox*, when day and night are equal. About the 21st of June he rises to our left, but somewhat behind us in the direction of the North-east, reaches a greater height at noon than on the 21st of March, and after describing a large circle in the heavens, sets on our right hand and still behind us, in the North-western quarter of the sky. This time is called the *Summer solstice*, or the time when the sun appears



This diagram of the seasons will tend to illustrate the subject more clearly. It shows the positions of the signs of the Zodiac, Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricornus, Aquarius, Pisces.

to stand still a few days, and then begins to retrace his steps. At this time the day is longest and the night shortest. At about the 23d of September the sun again rises due East, and sets due West, as on the 20th of March; and this is called the *Autumnal Equinox*, day and night being now again equal. At about the 21st of December, if we observe from the same position, we may see, without turning our eyes, the points at which he rises and sets. He rises in the South-east, ascends to a small elevation at noon, and sets in the South-west, after having described a very small arc in the heavens. This time is called the *Winter solstice*, when the sun seems to remain stationary for a short time, as it were, preparatory to his advancing to describe larger circles of the heavens. The day is now shortest and the night longest. Each succeeding day after this he appears to rise a little farther towards the East, for the stars which are seen to the Eastward of him appear every succeeding day to be nearer to the place where he is seen. All these various and successive changes are accomplished within the period of three hundred and sixty-five days, six hours, in which time he appears to have made a complete revolution round the heavens from West to East, at the rate of about one degree each day.

The moon is the next object in the heavens which naturally attracts our attention, and she goes through similar changes in the course of a month. When she first becomes visible at *new moon*, she appears in the Western part of the heavens, near where the sun went down, and she appears in the form of a crescent, having the horns pointed toward the East, the sun being now to the Westward of her. Every night she appears increased in size and removed to a greater distance from the sun, until after the lapse of about two weeks, she appears in the Eastern part of the horizon, just as the sun disappears in the Western, at which time she presents a round, full, enlightened face, and is called *full moon*. After this she gradually moves farther and farther Eastward, and her enlightened part gradually decreases, until at last she seems to approach the sun as nearly in the East as she did in the West, and rises only a little before him in the morning, in the form of a crescent, having its horns pointed toward the West, the sun being now to the Eastward of her. All these different changes may be traced by attending to her apparent positions from time to time with respect to the fixed stars.

Again, if on a winter evening, about six o'clock, we direct our view to the Eastern quarter of the sky, we shall perceive certain stars just risen above the horizon; if we observe the same stars at midnight, we shall see them at a considerable elevation in the South, having apparently moved over a space equal to one-half of the whole

hemisphere. On the next morning, about six o'clock, the same stars will be seen to set in the Western part of the sky. If we now look quite toward the South, we shall find that the stars there only describe very small arcs, rising but a little above the horizon, and setting again, after a short time, not far from the same point; the highest altitude attained at any time not being more than a few degrees. If we turn our eyes towards the North, we shall perceive a similar apparent motion of these twinkling orbs, but with this difference that a considerable number of them neither rise nor set, but seem to describe circles of greater or less diameter, round an apparently immovable point, called the North Pole. Near this point is situated the pole star, which in our latitude appears elevated about half way between the horizon, and the zenith, or point directly over our heads; and to a common observer seems fixed; but is found by the telescope to describe circles of about three degrees in diameter around the north polar point, from which the star is, therefore, really distant about one and a-half degrees. Thus, these Northern stars never set to us, but seem sometimes above, sometimes below, and sometimes to the East or to the West of the north polar point; the dimensions of the circles they describe depending upon their distances from the north pole; and the time they occupy in completing their circles is about 24 hours; or more accurately 23 hours, 56 minutes, and 4 seconds, that is, one day; and they all finish their revolutions in exactly the same period of time.

A person who has for the first time directed his attention to the heavens after having made such observations, will naturally enquire; whence come these stars that begin to appear in the East? Whither have those gone that have disappeared in the West? And what becomes during the day of the stars which are visible during the night? It occurs at once to an intelligent observer who is convinced of the roundness of the earth, that the stars which rise above the Eastern horizon come from another hemisphere, which we are apt to imagine below us, and when they set return to that hemisphere again; and that the reason why stars are not apparent during the day-time is not because they are absent from our hemisphere, or have ceased to shine, but because their light is obscured by the more vivid splendor of the sun. The fact of their presence in our hemisphere during the day is put beyond all doubt by the use of the telescope, which instrument, adapted to an equatorial motion, enables us to see many of the stars even at noon-day. We ourself have seen with the naked eye one of the planets at a pretty high elevation in the North-Eastern part of the heavens, on the forenoon of a day when the sun was shining brightly; its appearance at that time excited the attention of many

others also. From such observations we are led to conclude that the earth on which we dwell exists in empty space surrounded on all sides by the celestial vault, and that the whole sphere of the heavens has an apparent motion round the earth every twenty-four hours. Whether this motion be real or apparent is, however, determined by other considerations.

Although such general views of the nocturnal heavens, which every common observer may take, have a tendency to expand the mind, and to elevate it to the contemplation of an invisible Power by which such movements are conducted; yet such is the apathy with which the greater portion of mankind gaze at the heavens, that there are thousands who have occasionally viewed the stars for the space of fifty years, who are still ignorant of the fact that they perform an apparent diurnal revolution round our globe.

Again, if we contemplate the heavens with some attention for a number of nights in succession, we shall find that by far the greater number of the stars never seem to alter their position with respect to each other. If we observe two stars at a certain apparent distance from each other either North or South, or in any other direction, they

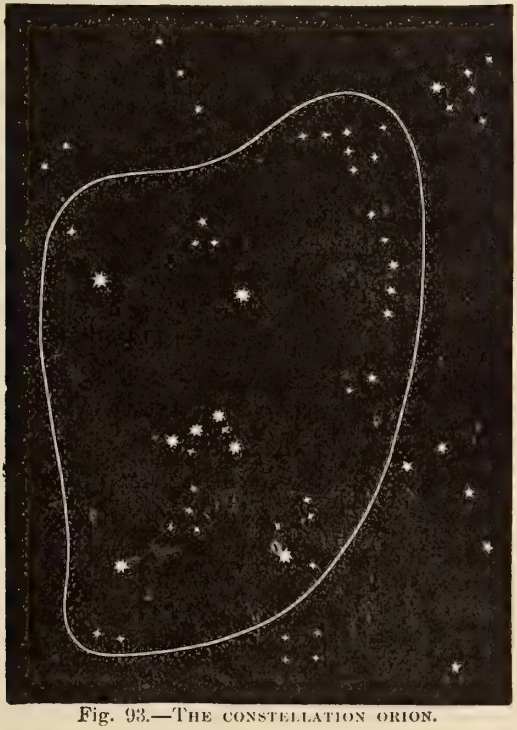


Fig. 93.—The constellation Orion.

will appear at the same distance, and in the same relative position, the next evening, the next month, and the next year. The stars,

for instance, which form the sword and belt of Orion, (which constellation may be seen during the winter in the Southern part of the heavens), present to our view the same figure and relative aspect during the whole period they are visible in winter, and from one year to another. And the same is the case with the stars of the Great



Fig. 94.

Bear, situated in the Northern parts of the sky,* and with all the fixed stars in the heavens.

There is, however, another fact with respect to the general appearance of the sky, which the observer can likewise verify for himself. Having fixed upon any bright star, let him observe it carefully on any evening at the exact time of its passing the meridian, or of its disappearance behind some conspicuous object, say a tree, or a church steeple. Let him observe it again on the following evening, and again after the lapse of a few days more, and he

* Figure 93 represents the constellation Orion; 94 represents the constellations of the Great Bear, the Little Bear, and the Pole Star. The seven stars in the lower part of the figure represent Ursa Major, or the Great Bear, sometimes known as the *Plow* and *Charles' Wain*. The seven stars in the upper part represent Ursa Minor, or the Little Bear, the largest star of which on the right hand side is the pole star. The two stars on the right hand side of the Great Bear are called the *Pointers*, because they point straight toward the north pole, and they are distant from each other about 5°. If a line connecting these two stars be considered as prolonged upwards to a considerable distance, about 29°, until it meet the first bright star, that star is the pole star, which is here represented at the highest part of the figure. About the beginning of November, at 6 or 7 o'clock in the evening, the Great Bear will appear near the north, at a low elevation above the horizon, nearly in the position represented in the figure. Let an observation be made about the middle of April, at 10 o'clock in the evening, the Great Bear will appear almost directly over our heads, *above* the pole star; and then we must conceive the line joining the two pointers as drawn *downwards* toward the pole star. At different times of the night, and at different seasons of the year, the Great Bear will appear to be in different positions with respect to the pole star, sometimes below, sometimes above, and sometimes to the East or West of it. But in all positions a line drawn through the pointers will direct the eye to the pole star.

will find that the star is a little earlier every day in arriving at the place. Thus, if it be on the meridian, or in a line with the marking object, at nine o'clock one day, it will be there about four minutes before nine on the next, and so on. It is owing to this that we see different constellations at different seasons of the year. Many of those which shine brightly on a winter's night are above the horizon in summer, during the day-time, and hence are invisible. In this way, we see by far the larger portion of the stars at some time or other of the year; but just as those stars within fifty degrees of the north pole never set to us, so those within a similar distance of the south pole never rise at all in our latitudes. Among the most brilliant of the constellations thus hidden from us is that called the Southern Cross, and when travellers are going toward the southern hemisphere they anxiously await the first appearance of this constellation. As they approach the tropics and the equator the north pole star seems to sink lower and lower in the sky, and the number of stars which never set in our latitudes become less and less, till, when they reach the equator, the pole is in their horizon, and all the stars are seen rising in the east, remaining visible exactly twelve hours, and then setting in the western horizon. They all appear here also to travel in straight lines instead of in curves, as they appear to do in the north and south latitudes. By placing an artificial globe so that its axis is horizontal, and its pole in the horizon, one may obtain a representation of these phenomena.

But while the fixed stars never appear to alter their positions in relation to each other, we find, by a close inspection of the sky, another class of bodies, which regularly shift their positions; sometimes these appear to move towards the east, sometimes towards the west, and sometimes to remain stationary. These bodies have received the name of *planets*, or wandering stars, in opposition to those which do not alter their position, and are hence called *fixed stars*. In our latitudes the planets are most frequently seen in the eastern and western, or in the southern quarters of the heavens; and they are situated, with the exception of a few of the minor ones, in a belt called the zodiac, extending for nine degrees on both sides of the ecliptic (this is the apparent path of the sun); and hence the planets are easily found by observers. More than one hundred of these planetary orbs have been discovered, six of which were known in times of great antiquity, and only about five are visible to the naked eye. By long continued and careful observations of the aspects and motions of these planets, astronomers have determined that they all move round the sun as the centre of their motions, and form, along with the earth, one grand and harmonious system. This

assemblage of heavenly bodies, in connection with the earth, is termed the solar system, of which we shall exhibit a brief description after we shall have shown the ball of the earth to be in motion.

For a long time during the dark ages, and the infancy of science, the earth on which we live was considered the largest body in the universe. It was supposed to be an immense plane, diversified with inequalities in the shape of mountains and valleys, and stretching out to an unlimited extent on all sides, bounded by the sky. What was below this immense mass of land and water, and how it was supported, none ventured positively to tell; though some of the Christian fathers strenuously asserted that the earth was extended infinitely downward, and established on several foundations; a plain contradiction, for what is infinite cannot have a foundation. According to the ideas of some of the ancients, however, Atlas bore up the world on his shoulders; and many of the Hindoos of the present day assert that it is supported by a serpent and a tortoise; but it is clear that these attempted solutions of the difficulty, as the foundations of the Christian fathers, only remove it one step farther; for we should have to seek some support for the man and the serpent. Such, however, were some of the absurd and foolish opinions of those who viewed the system of the universe through a false medium, and who were ignorant of the facts and principles of modern science. It is only within the period of the last three centuries that the true figure and dimensions of the earth have been accurately ascertained. This figure is now found to be that of a sphere or globe, deviating, however, from the perfect spherical form, only so slightly that it could not be perceived in any model we could make of it. Suppose, for instance, we made a globe of thirty inches diameter, the difference between the polar and equatorial diameters would be only $\frac{1}{100}$th of an inch, a difference too small for the keenest eye to detect. The real dimensions of the earth's diameters are found to be as follows: The greater, or equatorial, diameter, 7925½ miles; the lesser or polar, diameter, 7899 miles; showing a difference of a little over twenty-six miles. We do not know but that further investigations will make this difference even less, so that the earth may be regarded as a perfect sphere. That this is in reality the form of the earth will appear from such considerations as the following: when we stand by the sea shore on a calm day we easily perceive that the surface of the water is not quite plane, but somewhat convex or rounded; and if we are on the shore of an arm of the sea, three or four miles broad, placing our eyes near the level of the water, and looking along its surface toward the opposite shore we plainly see the water elevated about midway between our eyes and the opposite shore, so

as to prevent us seeing the objects which are near the edge of the water there. If we make the same experiment on a lake of three or four miles in extent, a small boat near the end of the lake may be seen by one who is at some height above the water; but if we lay our eye near the surface the view of the boat will be intercepted by the convexity of the water, which proves the lake to be a small segment of a globe. On land, it is seldom a large tract of land can be chosen sufficiently level to answer the purpose of making such experiments, as even in large planes there are frequently undulations which materially alter the earth's natural convexity. Again, when we view a ship departing from the coast in any direction as it retires from our view we still see the masts and rigging of the vessel, when the hull has disappeared, and has sunk, as it were, beyond the boundaries of our sight. First we lose sight of the hull, then of the sails, and last of all of the topmast. On the other hand, when a ship is approaching the shore, the first part of it which is visible when at a considerable distance is the topmast; as it approaches nearer the sails come into view; and last of all the hull gradually comes within



Fig. 95.

Here only that part of the ship above the line A C can be seen by the spectator C: the rest of the ship is hidden by the swell of the curve D E.

the limits of our sight; but the vessel will pass over several miles of the sea, from the time of our first perceiving the topmast until the hull appears in sight. In order that such observations should be made with accuracy it is requisite that a telescope should be used.



Fig. 96.

What is it then that prevents the hull of the ship, the largest part of it, from being seen when the topmasts are visible? It is evidently the round or convex surface of the water, bulging up, as it were, between our eye and the lower part of the ship. When the ship is at a certain distance from us, when the hull has just begun to disappear from a person standing on the surface of the ground, the whole will be visible to an observer on an elevated building; and if there be a lofty mountain near by the vessel will be seen from this after every portion of it is hidden from those on the beach. See Fig. 96.

This proves without doubt that the earth's surface is round; and, in fact, a rough estimate of the size of the earth may be formed in this way. We have only to fix upon two elevations of equal height, as, for instance, marked places on the masts of two vessels, and ascertain the exact distance at which they are hidden from each other by the curvature of the earth. We must also know the elevation of the marked places on the masts above the level of the sea, and then by a simple proportion we shall obtain the diameter of the earth. The question is stated thus: As the height of the station of observation is to the distance of the visible horizon (which is half the distance between the two stations), so is this distance to the diameter of the earth. By another calculation it is found that two places elevated ten feet become hidden from one another at a distance a little short of eight miles; that is to say, a straight line drawn from one of these to the other would just touch the earth midway between them. The curvature then may be set down as ten feet in $3\frac{7}{8}$ miles; and the proportion is as follows: As 10 feet: $3\frac{7}{8}$:: $3\frac{7}{8}$ miles: the diameter of the earth. This gives $7828\frac{1}{4}$ miles for the earth's diameter, which is not far from correct. But the more accurate and philosophical mode of ascertaining its dimensions is by measuring an arc of the meridian, a process which enables us accurately to determine the length of a degree of latitude from the equator to the pole.

Now as such appearances as those we have mentioned, with respect to the water's surface and the ship, are observed on every sea and ocean on the face of the earth, it follows that the ocean at large is a convex surface, or a portion of a globe; and the waters cover more than three-fourths of the earth's surface; and if the ocean, constituting three-fourths of the earth, be globular, so also is the land, the remaining one-fourth, notwithstanding that the hills and the mountains form a few inequalities on its surface; for the regions of the land are all nearly on a level with the ocean, with the exception of the ranges of elevated mountains. The height of the table-lands and mountain ranges bears such a small proportion to the actual diameter of the earth, that they in no way interfere with its general spherical outline. The greatest elevations are only about five miles, and there are but a few of these; while the diameter of the earth is about 8000 miles. If then we would accurately represent these on a globe having a diameter of 16 inches, we must make them $\frac{1}{100}$th of an inch high; or they might be well represented by very small grains of sand. The thinnest tissue-paper would fully represent the elevation of table-lands; and minute scratches, almost invisible without a microscope, would show the mountain gorges and valleys of rivers; so for all ordinary purposes the earth is considered absolutely spherical.

On the other hand, were the surface of the sea a level plane the appearances would be very different. A straight line might be drawn from an object, as a ship, upon it, from any distance out, to the shore. In this case any object on the earth or sea would be visible at any distance, which was not so great as to make its appearance too small or faint to be perceived. An object would be visible at the same distance whether the eye were situated high or low. Sailors would not in such a case have to climb to the topmast in order to descry ships or other objects at a distance, for they could see them just as plain and at as great a distance from the deck, after the objects had come within visible distance. The largest and not the highest objects would be visible at the greatest distance. The topmast of a ship would first disappear, and the hull, as being the largest object, would be the longest visible; but this is contrary to all experience. The considerations already adduced are, therefore, clear and decisive proofs that the earth is not an extended plane, but a globular body; and it seems truly wonderful that such a conclusion was not generally arrived at until a comparatively recent date.

Moreover, that the earth is round from east to west is clear from the fact that navigation has long been conducted on that principle with the greatest precision, and that navigators have repeatedly sailed around it from east to west. They have set sail from England, crossed the Atlantic, rounded Cape Horn, sailed along the Pacific Ocean to the northern coasts of Australia, crossed the Indian Ocean, and, passing the Cape of Good Hope, have again arrived, by traversing the Atlantic, at the port whence they set sail. These experiments, therefore, show that the earth is round from east to west, but they do not prove that it is also round from north to south, for it has never been actually circumnavigated in that direction, owing to the obstruction caused to navigation by the immense masses of ice within the polar regions. Had we, therefore, no other proof of the earth's rotundity than this, we might be apt to suppose it somewhat resembling the shape of a cylinder; but that the earth is really round from north to south appears from the following considerations. When we travel a considerable distance from north to south, or from south to north, a number of new stars successively arise in the quarter of the heavens (whichever it may be) to which we are advancing, and many of those in the opposite quarter gradually disappear. For example, in sailing toward the south, when we approach the equator the brilliant constellation called the Southern Cross, before mentioned, which is never seen in our northern latitudes, makes its appearance; and if we go farther south the constellations of the Great Bear, Cassiopeia, and other stars, visible in our northern

sky, will entirely disappear, which could not happen if the earth were a plane in that direction; for in such a case all the stars of heaven would be visible in every point from the north to the south pole. Another corroborative proof of the earth's globularity is this. In excavating a canal of any length, in order to have the waters on a level, certain allowances require to be made for the earth's convexity. The slope required to be made on this account is about eight inches in the mile, thirty-two inches in two miles, and so on, increasing with the square of the distance. If the earth were a level surface no allowances of this kind would need to be made in order that the water in a long canal might stand on a level.

But another most evident and conclusive proof of the earth's rotundity is that afforded in the shape of its shadow. The earth is an opaque body, shines by reflected light; and, must, therefore, cast a dark shadow in the direction opposite to the sun; but the shape of this shadow can only be seen when there is some solid body on which it can be thrown. Now there is but one body which ever comes near enough to the earth to receive this, and this body is the moon. When, therefore, the lunar eclipse happens, if we watch the moon as it enters the shadow of the earth, and again as it emerges from it, we shall find that the dark line of the shadow on the moon's disc is *always curved* to an arc of a circle. The earth therefore must either be a globe or a flat circular disc, and at first sight we might incline to the latter view, and imagine, with some of the ancients, that we dwell on a flat surface, like the top of a round table. When, however, we remember that *in all cases* and *in every position* of the earth and moon at the time of an eclipse the shadow is *always circular*, we are assured that the earth must be globular, as no other figure could always cast a circular shadow.

It is to be presumed that after the sensible and undeniable demonstrations that have been given of the rotundity of the earth, none of our readers will have any doubts left that the earth in which we live is of globular form, but there may still be some who are not yet convinced that it moves round its axis, and with immense velocity, through the regions of space, in company with the other planets. On this subject, therefore, we shall now offer a few considerations tending to show that the earth we inhabit, however steadfast it may appear to the eye of sense, is really a moving body, and that it moves with a velocity far greater than we are accustomed to see around us. There are two different motions considered as connected with the earth; one by which it is viewed as turning round its axis every twenty-four hours, and producing the succession of day and night; and another by which it moves round the sun every year, bringing about the changes of the seasons.

We shall here chiefly illustrate those arguments by which its diurnal motion may be demonstrated, and its annual motion afterwards. In the first place then there is one thing of which all feel certain; that is, that motion does actually exist, either in the earth or in all the heavenly bodies around the earth. We behold every day the sun apparently moving from the eastern to the western horizon. We observe also all the stars apparently moving in a body round the earth in the course of twenty-four hours, and in the manner described above. Such observations, which everyone has it in their power to make, clearly show, that there is motion somewhere; and the question is, is this only apparent with respect to the heavens, or is it the motion of the earth that produces this appearance? Let us suppose for a moment that it is the earth which moves; what will be the rate of its motion in turning round its axis to produce the apparent revolution of the heavens? For if the earth really revolves round its axis from west to east, the heavens will, of course, appear to revolve round us from east to west, just as when one is on board a steamboat on a river, and not noticing the motion of the vessel, he sees the trees and other objects on the bank, *apparently* moving in the opposite direction to that in which the vessel is *really* going. The same kind of appearances often happen to a person sitting in a railroad car when in motion; one is apt to think the fields and fences, the whole side of the country, to be moving in the contrary direction to that of the cars' motion. The rate of the earth's motion will depend upon its magnitude. Now we know that the earth is a globe somewhat more than twenty-four thousand miles in circumference, and consequently in turning round every twenty-four hours some portions of its surface must move, at least, a thousand miles every hour. This is a motion far more rapid than has ever been produced in the smallest bodies by human art; and, therefore, it may appear incredible to some that such a motion can exist in a globe of such vast dimensions as the earth. But if such persons deny that the earth thus moves then they *must admit* that the heavens move. There is no alternative, for motion actually exists either in the one or in the other. Now if the motion is to be considered as existing in the heavens, let us see what the rate of this motion must necessarily be.

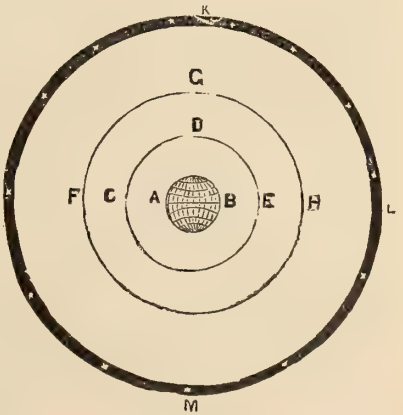


Fig. 97.

If a small globe of eighteen inches diameter and a globe of two thousand yards, or seventy-two thousand inches in diameter were each supposed to perform a revolution round its axis and to finish a rotation in the same time, this large globe would move with a velocity four thousand times greater than the other. In the annexed figure, if A B in the centre, represent the earth, then if the circle C E revolve around it in a certain time, and the other two circles revolve round it in the same time, it is certain that the circle F H must revolve with a quicker motion than the circle C E; and the circle I L with a still greater velocity, in proportion to its greater distance from the centre of motion A B. We shall consider then what would be the rate of motion of some of the heavenly bodies whose distances from the earth are known. The sun is ascertained to be somewhat near ninety-five millions of miles distant from the earth; and, consequently, were he to move round the earth every day, as he appears to do, he would move along a circumference of five hundred and ninety-seven millions of miles every day; that is, at the rate of about twenty-four millions of miles an hour, four hundred and fourteen thousand miles a minute, and six thousand nine hundred miles a second. Again the planet Uranus at its nearest point to the earth is more than one thousand seven hundred millions of miles distant; and consequently the circumference of its orbit is more than ten thousand six hundred millions of miles. If, therefore, this planet were supposed to move round the earth every day, its motions would be at the rate of four hundred and forty-five millions of miles in an hour, seven millions four hundred and twenty thousand miles in a minute, and one hundred and twenty-three thousand six hundred and seventy-seven miles every second. Again the nearest fixed stars are known not to be within 20,000,000,000,000, or twenty billions of miles off the earth; and consequently their daily circuit round our globe would measure 125,000,000,000,000, or one hundred and twenty-five billions of miles; this is at the rate of fourteen hundred millions of miles in the space of a single second, or the interval of time which the pendulum of a common clock takes in moving from one side to the other; stars at distances hundreds of times greater, of which there are many in our firmament, would move with a rapidity of hundreds of times swifter; and those still further removed from us in the depths of immensity with a velocity far exceeding human conception; yet all the stars of heaven appear to move round our globe every twenty-four hours. If the circle C D E of the figure represent the supposed diurnal orbit of the sun; F G H that of Uranus; and I K L M that of some of the

fixed stars; then it is evident that in proportion to the distance of the body from the earth will the velocity of its motion be, if it be supposed to move round the earth.

If, therefore, there be any reader disposed to reject the motion of the earth because it is inconceivable he must necessarily admit of motions ten hundred thousand times greater and far more incomprehensible; more especially when it is considered that the bodies in the heavens to which we have alluded are incomparably greater than the globe of earth on which we live; the planet Uranus being eighty times, and the sun more than one million three hundred thousand times larger than the earth, and the fixed stars on an average as large as the sun. Such a rate of motion in such a number of magnificent globes appear altogether overwhelming, incomprehensible, and incredible.

The question, then, that is to be decided is, which of the motions to which we have referred is the most probable,—the motion of the earth or that of the heavens? Is it really necessary that the whole universe, composed of sun, moon, planets, comets, stars, and nebulæ, should move round our globe with such astonishing velocities in order to produce the alternate succession of day and night on the earth? Reason says that it is not. It would contradict all our ideas of the simple and reasonable operations of nature, and of the intelligence of the Deity. The succession of day and night can be accomplished by a simple rotation of the earth on its axis, which is found to *completely account* for all the apparent diurnal revolutions of the celestial bodies. This is understood to be the case with the other planets of the solar system. The planet Jupiter is fourteen hundred times larger than the earth, and is said to move round its axis in less than ten hours, at the rate of 28,000 miles an hour, which is a velocity twenty-eight times greater than that of the earth, supposing the latter to move round its axis. The planet Saturn is about a thousand times larger than our globe, and it is said to revolve round its axis in ten hours and a-half, at the rate of 24,000 miles an hour in those places near its equator. To a spectator then, placed on these planets, the heavens would appear to revolve around him every ten hours, as they appear to us to revolve every twenty-four hours, but with an apparently more rapid motion; while he, himself, might suppose, as we are apt to do, that the planet on which he is is really at rest. The earth, therefere, must be considered as revolving round its axis, in accordance with the revolutions of the other planets of the system to which it belongs; and to suppose otherwise would be in opposition to all the laws which govern the material universe, and

would distort all our ideas of the harmony and order of the operations of nature.

Another consideration which demonstrates the diurnal motion of the earth is this; that such a rate of motion in the heavenly bodies as has now been stated would shatter the material universe to atoms. Were a ball of soft wood projected from a cannon at the rate of 800 miles an hour, in a few moments it would be reduced to splinters; and hence the forage and other light substances projected from a piece of ordnance are instantly torn to pieces. What then might be supposed to be the consequence, were a body impelled through the etherial regions with a velocity of a hundred thousand millions of miles in a minute, as multitudes of the stars behoved to be, were the earth at rest in the centre of the universe? It would undoubtedly reduce to atoms the most solid bodies in existence, though they were composed of substances harder than adamant.

Another corroborative argument which astronomers bring forward in support of the motion of the earth is this: that there is no instance known in the universe of a larger body revolving round a smaller one. We do not find, say they, such planets as Jupiter and Saturn revolving round their satellites; but all these satellites, which are much smaller than their primaries, perform their revolutions around the latter as the centre of their motions. The earth, which is fifty times greater than the moon, does not revolve round her, but that nocturnal luminary regularly revolves round the earth. The sun does not revolve round the planets Mercury or Venus, which are thousands of times less than that luminary, but they invariably revolve around him as their centre of attraction, light, and heat. As the sun is over one million three hundred thousand times larger than the earth it cannot, therefore, be supposed for a moment that such an enormous globe would revolve with such an inconceivably rapid motion round so inconsiderable a ball as the earth, and much less that the whole universe should revolve around it every day. Were the earth not revolving around its circumference every day there would be an infraction of all the laws which are known to govern the system of universal nature; and, therefore, it is absolutely necessary to admit its motion in order to direct our views and to become fully convinced of the systematic order and harmony of the operations of universal nature. What would be thought of a machine (if such could be conceived to be constructed) as large as the city of London, or any other large city, bearing a huge lamp near its centre, and revolving daily round a little ball of one inch in diameter, suspended in empty space, merely for the purpose of giving light and

heat to the surface of this little ball, when, at the same time, a revolution of the ball round its axis would answer the same purpose? The designer and constructor of such a system, however ingenious he might be thought by some for his great contrivance, would justly, by all wise men, be considered insane for having so disproportioned means to ends in the accomplishment of his object. Such a scheme, however, absurd as it seems, would not be half so preposterous as to suppose the vast universe to turn round so inconsiderable a ball as the earth to produce the alternate succession of day and night, when the same object could be effected by the earth's simply revolving round its axis once in twenty-four hours. But the whole system of universal nature is proportionate as to its constituent parts, and their operations; none of its parts, are unnecessary; none of its operations take place inconsistently with infinite intelligence and wisdom; and its operations all appear simple and reasonable when rightly considered. Now, all these supposed inconsistencies and impossibilities, which we have been considering, are at once got rid of, and complete, universal harmony and order restored, by the admission of the rotation of the earth round its axis every day.

Circles, Degrees, etc., explained.

If we refer to an ordinary terrestrial globe, such for example as those used in schools and colleges, we shall find that there are several circles drawn upon it, and we shall also observe that these are of different sizes, those called parallels of latitude near the poles and the polar circles being much smaller than those nearer the circle called the equator. These circles are accordingly divided into two classes, called respectively great and small circles. Great circles are those whose plane passes through the centre of the globe, so that they divide it into two equal portions; and, assuming the earth to be a perfect sphere, all these great circles will be exactly equal. All other circles are called small circles. The most important of the great circles is the equator, which is an imaginary line drawn round the earth, equally distant from the north and south poles, and therefore dividing the globe into two equal halves, called the northern and southern hemispheres. If now we conceive the plane



of this circle to be extended to the sky, we shall have a great circle of the heavens, known as the *celestial equator*, or more usually the *equinoctial.* This latter term is derived from two Latin words signifying "equal" and "night," and is applied to it because when the sun appears to be on this line it shines equally on both hemispheres; and day and night are then of equal length in all parts of the earth, the sun being above the horizon at every place for about 12 hours, and below it for about the same length of time. The days on which this happens are the 20th of March and the 23d of September; and by counting the days between these dates we shall find that in the northern hemisphere the summer is a few days longer than the winter; or in other words, that the period during which the sun is north of the equator is a few days longer than that during which he is south of it.

The sun's apparent path is not, however, along the equinoctial, but in a great circle, inclined to it at the present time at an angle of about 23° 27′ 30″, and known as the *ecliptic.* Round this the sun appears to travel, performing the complete circuit of it in the space of one year. The space extending for 9° on both sides of the ecliptic, and thus constituting a band or zone 18° wide, is known as the *zodiac;* and within this space, as we have already explained, all the planets, with the exception of a few of the minor ones, are constantly found; so that we can always tell somewhat of the position in which they are. The zodiac is divided into twelve equal portions, each containing 30°, and the stars in these spaces are mapped out into the constellations known as the "signs of the zodiac," which we shall notice hereafter.

As we shall have frequent occasion to speak of degrees it is well that it be clearly understood what is meant by a degree, and the mode in which it is measured. It is evidently necessary for us to have some means of measuring the distances of the heavenly bodies from one another, and this can only be done by measuring the angle which imaginary lines, drawn from them to our eye, subtend. By a little consideration we shall find that it is in the same way we form our estimate of the dimensions of ordinary objects around us, and hence when we bring them nearer to our eye they appear larger, because the rays coming from their extremes to our eye contain a larger angle. Now we want some means of measuring and expressing in words the angle thus contained, and this we do by means of degrees and fractions of a degree. A degree then is the 360th part of a circle; that is, if we draw a large circle on paper, for example, and divide its circumference into 360 equal parts, and then draw straight lines from these divisions to the centre of the circle, the

angle contained between any two adjacent lines will be just one degree. On any circle we can draw on paper these divisions will necessarily be very small; when, however, we deal with a globe like the earth we find that a degree at the equator measures about 69 miles.

In a right angle there are, of course, ninety degrees, and if we can make a triangle with three equal sides, each angle will contain just sixty degrees. A degree is divided into sixty parts called minutes (*minute* parts); each of these is divided into sixty parts, called seconds; and in more delicate and accurate observations each of these is again divided into sixty parts, called thirds. These divisions are usually expressed by the signs for degrees (°), minutes (′), seconds (″), thirds (‴); thus 16°, 37′, 5″, 15‴. As a general guide to us in estimating approximately the distances or dimensions of the heavenly bodies it will be expedient to remember that the apparent diameter of the sun or moon is about half a degree; the distance between the pointers in the Great Bear is six degrees, and that between the pole star and the pointer nearest to it about twenty-four degrees. By means of an accurately graduated semi-circle we can easily measure any angle, and ascertain the number of degrees it contains.

We have stated above that the inclination of the ecliptic to the equator, or, as it is termed the "obliquity of the ecliptic" is nearly 23½ degrees. This amount, however, is not constantly the same, but varies a little in the lapse of centuries. The rate of this variation is very slight, being less than 1′ in 100 years, and it is found that it can only take place within very narrow limits. At present it is decreasing, but before it can have deviated as much as a degree and a-half the causes producing it will have been so modified as to act in a contrary direction, and increase the inclination again. All through astronomy instances are met with of these slow and gradual variations; but all are confined within very narrow limits, and instead of tending to a total change in the status of the earth or the system to which it belongs, they tend to the permanency of the system.

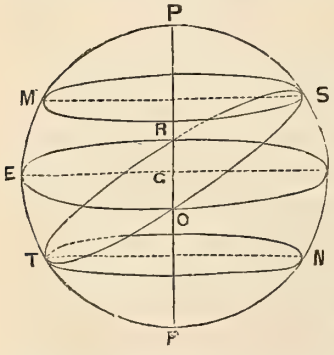
Now since these two great circles are thus inclined there must be two points in which they intersect one another, and these are called the equinoctial points, or the vernal and autumnal equinoxes. One of these is the first degree in the sign *Aries*, and the other the first in *Libra*. The first of these, or the vernal equinox, is the most important, as it is taken as the fixed point to be employed in measuring distances from, when we want to indicate the place of any body. We then take the equinoctial or equator as our base line, and first of all measure the distance of any star north or south of that. On a

terrestrial globe parallels of latitude, are drawn at distances of ten degrees.* It must be remembered that when we speak of degrees of latitude what we really mean is the inclination, which a straight line drawn from the place to the earth's centre would have to the plane of the equator. A degree is a measure of an angle, and not of a distance. It is well that this point should be clearly understood, as mistakes often arise through want of understanding it. Some folks will say, "a degree equals somewhat over sixty-nine miles," when what they really mean is that at the equator two lines meeting at the earth's centre, inclined to one another at this angle, would include between them a portion of the earth's surface of that length. On Jupiter, or any globe larger than the earth, the amount thus subtended at the equator would naturally be much greater; and on the other hand, in any small circle which we may draw on a piece of paper there is still 360°; each degree, therefore, is very minute.

In astronomy, the distance north or south of the equinoctial is called the *declination* of a heavenly body. If now we draw another great circle passing through the poles, and also through the star, it will intersect the equator in two places, and the one of these on the same side as that on which the star is situated will furnish us with the other distance required.

If we examine the equinoctial on a celestial globe, we shall find that it is divided into degrees from 0°, to 360°, reckoning from east to west, the starting point being the first point of Aries.

The great circles to which we have referred, as passing through the poles perpendicular to the equator, are called *meridians*, and any number of them might be drawn; usually, however, twenty-four are drawn on the globe, their distance apart being fifteen degrees. They are then frequently termed *hour lines*, as the firmament seems to move just the interval between two of them in the space of an hour.



* In figure 98, the line P P represents the earth's axis, that is, the diameter of the sphere passing through the poles P P, and the centre C. The great circle E Q represents the equator, the great circle S T the ecliptic; the points R and O, where it intersects the equator, are called the nodes, and also the equinoctial points; and the points S and T, its farthest points north and south of the equator, are called the solstices; respectively the summer and winter solstice. The two small circles M S, and T N, parallel to the equator, are called the tropics, that to the north the tropic of Cancer; and that to the south the tropic of Capricorn. Now terrestrial parallels of latitude are small circles drawn parallel to the earth's equator; while celestial parallels of latitude are drawn on the celestial globe parallel to the ecliptic. The two great circles M P Q N P T E, and R P O P (if the latter be conceived as a great circle at right angles with the other), are called respectively the solstitial and equinoctial *colures*.

We can obtain a clearer idea of these meridians by taking the globe out of its framework, and letting the brass meridian be free to turn round on its poles; we can then bring it over any star or place, and it will represent the meridian of that place. We shall likewise be able to see on the equator, the distance of its intersection from the first point in Aries. This distance is known as the *right ascension*, usually abbreviated thus, R. A. Thus, we see the way in which the position of a star is determined, the two measures being its right ascension and its declination. Suppose, for example, we wish to point out the place of a star in the tip of the tail of the Great Bear, we first find it on the globe, and bringing it to the brass meridian, we shall find that its elevation above the equinoctial is very nearly 50°, this is its declination. We now look to the equinoctial, and find the point of it directly under the meridian is 204°, or 13 hours, 36 minutes, from Aries; and thus we assign its place as 50° north declination, and 204° right ascension. In a similar way when the right ascension and declination are given, the star can be found.

If we examine a celestial globe we shall find that though the mark ♈, signifying the commencement of the sign Aries, is placed at the intersection of the equinoctial and the ecliptic, yet the portion of the zodiac commencing at that sign is in reality occupied by the constellation *Pisces*. The stars forming Aries are moved 30° to the east, occupying the place assigned to Taurus, and all the other zodiacal constellations are moved one sign to the eastward. The cause of this is the precession of the equinoxes, which was first discovered by Hipparchus in the second century B. C. The points of intersection of the equator and the ecliptic, or as they are usually termed the *nodes*, do not remain constantly in the same place, but are slowly moving toward the west, that is in a retrograde direction. This was first observed by noticing that the right ascensions of all stars were slowly and uniformly increasing. This could only be accounted for in one of two ways; either they must all be slowly moving forwards, or the point from which we measure their right ascension must be moving backwards. The latter of these explanations, being by far the most simple, has been adopted. The rate of this motion is but slow, so that its effect on the position of the stars from year to year can only be ascertained by the most careful and delicate observations. When however, we compare the position of a star with that assigned to it by observers a few centuries ago we soon become aware of the change. The most careful observations fix the annual amount of this motion at 50″ 2‴; so that the time occupied by the nodes in making a complete circuit of the heavens would be a little more than 25,900 years. * By reckoning backward it is found that the constellations and the

* In the regress of the nodes from 0° *Aries* to 181° in *Libra*, and then again to 0° *Aries*, those climatic changes are occasioned which at certain stages are so disastrous to life. The gradual progress of those changes enables the species to seek more congenial latitudes. Formerly the nodes were generally said to retrograde 54″ in a year, or 15° in 1,000 years.

signs of the zodiac coincided with one another about the year 370, B.C. Besides this motion of which we have spoken, there is another of much smaller amount, which is known as *nutation* or the noding of the pole. It arises from the circumstances that the earth's distance from the sun varies at different times of the year, and thus the amount of precession varies slightly from day to day. The effect of this variation is to cause the pole to describe, in the course of about 18½ years, a very small ellipse, the longer axis being about 18½″, and the shorter nearly 14″. This motion, combined with the other, produces a vibratory or undulating movement of the pole; it is only, however, in very accurate observations that this has to be taken into account. One important effect of the precession of the equinoxes is to change the pole-star. That at present known by this name is distant about 1½° from the true pole; its distance is, however, gradually diminishing, so that in the course of years it will be within half a degree, and it will then commence to recede from it. In about 12,000 years it is estimated the brilliant star Vega, in the constellation Lyræ, will be very close to the pole, and serve as a pole-star.

There are also two other points in the ecliptic especially distinguished, and known as the *solstitial points*. These are situated midway between the nodes, and are at the commencement of the signs Cancer and Capricornus. The term solstitial is derived from the Latin *sol*, the sun, and *stare*, to stand, and is applied to these points, because when the sun reaches them it has attained its greatest north or south declination, and appears to stand for a few days before commencing to retrace its steps. Two great circles are drawn on the celestial globe, passing through the poles, the one passing through the equinoctial points, and the other through the solstitial points; and these are distinguished as the equinoctial and solstitial *colures*. They divide the ecliptic into four equal portions, and mark the divisions of the seasons of the year. The days on which the sun is at the solstices are the 21st of June, and the 21st of December; and these are respectively the longest and the shortest days.

Two small circles, parallel to the equator, and passing through the solstitial points are called the *Tropics*, that to the north being distinguished as the tropic of Cancer, and that to the south as the tropic of Capricorn. These, however, are of more importance in the use of the terrestrial globe than in that of the celestial. There are also two circles situated at a similar distance from the poles which mark the limits of the polar regions, from which the sun is sometimes hidden for more than a complete day; that to the north is called the Arctic, and that to the south the Antarctic, Circle.

The most usual way of describing the position of any star in the

heavens is by giving its declination and right ascension, as described above, the distances being reckoned from the equinoctial. Sometimes, however, these distances are reckoned from the ecliptic, and are then called the latitude and longitude. Parallels of latitude, circles parallel to the ecliptic, are frequently drawn on celestial globes to enable the latitude to be found without difficulty; the pole of the ecliptic is, of course the centre of these circles. Celestial longitude, as right ascension, is reckoned from the point Aries, and like it, is reckoned only in one direction from 0° to 360°. Terrestial longitude, on the other hand, is reckoned from 0° to 180° east or west. Celestial longitude, therefore, measured from the point Aries on the ecliptic, corresponds to right ascension measured from the same point on the equinoctial; and celestial latitude measured from the ecliptic north or south, corresponds to declination measured from the equinoctial.

The Horizon.

As we shall have sometimes to speak of the *horizon*, it will be well for us distinctly to state what we understand by it, as sometimes there is a little confusion on this matter.

The *rational* or true horizon is an imaginary plane drawn through the centre of the earth, so that the line, where it cuts the surface, is everywhere equidistant from the observer. If we take an orange or an apple and divide it into two equal portions, or place a ring round it, so as to be midway between the *eye* and the *stalk*, it will represent the horizon. In an ordinary celestial globe, if the poles be elevated to the latitude of the place, the situation of the wooden horizon will correspond with that of the rational horizon to the observer. Thus, it will be seen that if this plane be extended on all sides to the sky it will divide it into two exactly equal hemispheres, one of which will be visible to the observer. There is, however, another sense in which the word horizon is used. When we ascend any height we see a line all around us where the earth and sky appear to touch; this is called the *sensible* or visible horizon. At sea or on a level plain this will appear to be a perfect circle; on land the elevations of the country usually interrupt the outline; still we can perceive that it is of a circular form, and that our point of observation is situated in the middle of it. The size of this circle increases with our elevation above the earth. Hence, when a sailor wants to know if any vessel is in sight, he ascends to the mast-head, where his view is much more extensive than it is from the deck of the ship. In the same way, if we ascend a high mountain, we gain a very extensive

view of the surrounding country. If we could place ourselves at a great distance from the earth, as for instance, on the surface of the moon, we should see just one half of the globe of the earth, and the rational and sensible horizon would then exactly coincide. This, of course, cannot be, and the highest elevation ever yet reached by man, or that in all probability ever will be attained, is so small, when compared with the earth's diameter, that only a small portion of our globe has ever been visible at once.

The following general rule will enable us approximately to calculate the distance of the visible horizon when we know the height of the station of observation. Express the height in feet and increase it by a half; then extract the square root, and this will give the distance in miles. Thus, if a building be 24 feet high, we then add 12 feet to it, making it 36, the square root of which is 6. The visible horizon is, therefore, distant six miles.

Eclipses Explained.

A dark shadow is occasionally seen to move across the face of the moon which obscures her light, and gives her the appearance of tarnished copper. Sometimes this shadow covers only a small portion of her disc · at other times it obscures the whole of it for an hour or two, and its margin always appears in the form of the segment of a circle. This phenomenon, which happens on an average about twice every year, is termed an *eclipse of the moon.* It is produced by the shadow of the earth falling upon the moon, when the sun, the earth, and the moon are in the same straight line ; the earth being interposed between the sun and the moon ; and this can only happen at the time of *full* moon. Sometimes the moon appears to pass across the disc of the sun, when her dark side is turned toward the earth, covering his disc, either in whole or in part, and intercepting his light from a certain portion of the earth. This is called an *eclipse of the sun*, and can happen only at the time of *new moon*, when the moon is interposed between the sun and the earth. In a total eclipse of the sun, which seldom happens, the darkness is so striking that some of the planets, and occasionally the larger stars, are seen and the inferior animals appear struck with terror.

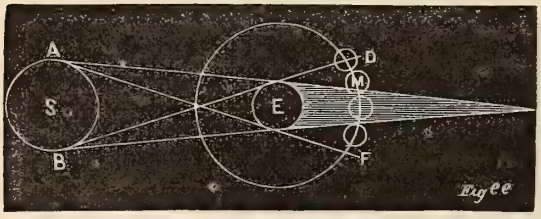


Fig 99

The theory of lunar eclipses will readily be understood by reference to the annexed figures. In figure 99, S represents the sun and

E the earth, whose shadow is a long cone reaching into space. This dark shadow is called the *umbra*, and it gradually shades off into the *penumbra*, which is bounded by the lines B D, A F, and tapers toward the earth instead of away from it; M represents the moon revolving round the earth, and on its journey it sometimes passes through the dark cone and becomes for a time invisible. The commencement is marked by a faint shade, beginning to creep over the east side of the moon's disc. This is the first contact with the penumbra. As the moon travels onwards it enters the umbra, and the east side of its disc then becomes almost invisible. When fully immersed in the umbra, the moon may usually be feebly seen, and appears of a ruddy hue. The duration of a total eclipse of the moon may be as great as 1 hour 50 minutes. This is when the moon passes directly through the middle of the umbra. At other times it passes near the edge, and is then obscured for only a short period. When it passes through the centre of the shadow the total duration, from the first contact to the last, may be 5½ hours.

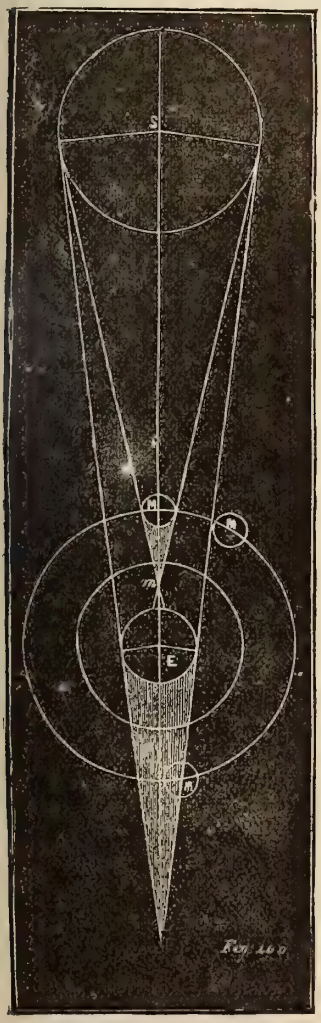


Figure 100 shows at one view the phenomena of both lunar and solar eclipses. The solar eclipse represented here is an annular one, as the shadow of the moon terminates at *m* before it reaches the earth. A moment's careful inspection of this diagram will show that an eclipse of the sun can only take place at the period of the new moon, as the enlightened hemisphere is turned away from the earth; and that an eclipse of the moon, on the other hand, can only occur at full moon. The reason why eclipses do not happen at every new and full moon is that the moon's orbit is inclined to the earth's orbit at an angle of 5° 9′; so that during one half of its journey, the moon is below the plane of the ecliptic, and in the other above it. Now the earth's shadow is in the same plane as its orbit, and hence at the period of full moon the shadow may be above or below the moon, and in either case no eclipse will occur. The points in which these planes intersect are

known as the *nodes*, and hence there is an eclipse of the moon whenever a full moon happens at or near one of the nodes. In a similar way a solar eclipse occurs when the moon is near one of the nodes at the time of new moon. The position of the nodes of the moon's orbit is continually changing, at the rate of 19° 20′ 1-3 minutes in a year; so that they perform a complete revolution in a trifle less than 18 years and 219 days. After an interval of 346.62 days, they come again into the same position in regard to the sun; and this period is called a *synodical revolution of the node*. Now it happens that 19 of these periods are almost exactly equal to 223 synodical revolutions of the moon; so that after this interval the sun, earth and moon, are again almost in the same relative position and the same series of eclipses is therefore repeated. This period of 6,585 days, or 18 years and 10 days, is called *a cycle of the moon*. It was known to the ancients and called the *Saros*, and by means of it eclipses were roughly calculated before any great progress had been made in the science of astronomy.

Conjunction and Opposition.

When a heavenly body is said to be in *conjunction* it is meant that the body is in a line with the sun and the earth, either between the earth and the sun, or having the sun interposed between it and the earth. When the body is between the earth and sun it is in its *inferior* conjunction; when on the other side of the sun from the earth it is in its *superior* conjunction. When a body is said to be in *opposition* it is meant that it is in a line with the sun, and the earth, the earth being interposed between it and the sun. The planets whose orbits lie between the earth's orbit and the sun, Mercury and Venus, have each two conjunctions, one inferior, or when either of them happens to be in a line between the earth and the sun; the other superior, or when they are in that part of their orbit that lies beyond the sun from the earth, in a line with the earth and sun; but these have no opposition. The superior planets, or those whose orbits lie without that of the earth have each one conjunction, the superior, and one opposition. The moon, whose movements are round the earth as a centre, and always accompanying the earth in its journey round the sun, has one conjunction, at new moon, the inferior; and one opposition, at full moon.

Proofs of the Earth's Annual Motion.

Now the *annual* motion of the earth and its position in the solar system are proved and illustrated by such considerations as the following: That if this motion did not exist, the motions of all the

planets would present a scene of inextricable confusion, consisting of direct and retrograde movements, and looped curves so anomalous and irregular as to be altogether inconsistent with anything like harmony, order, or intelligence: That Mercury and Venus have two conjunctions with the sun, but no opposition, which could not happen did not the orbits of these planets lie within that of the earth: That Mars, Jupiter, and all the other superior planets, have each their conjunctions with, and oppositions to the sun, which could not take place unless their orbits were exterior to that of the earth: That the greatest elongation (apparent distance) of Mercury from the Sun is only about 29°, and that of Venus 48°; but if the earth were the centre of their motions, as the Ptolemaic system, and some other systems suppose, they might sometimes be seen 180° from the sun, or in opposition to him, which never happens: That some of the planets appear much larger and brighter at some times than at others on account of their different distances from the earth; but on the other hypothesis, their brilliancy and apparent size would be always about the same: That Mercury and Venus in their superior conjunctions with the sun, are sometimes hid behind his body, and in their inferior conjunctions sometimes appear to pass across the disc of the sun like round black spots, which would be impossible according to the Ptolemaic system: And in short, that the times in which the conjunctions and oppositions, stations (or when the planets are in that part of their orbit in relation to the earth and sun in which they appear to be stationary), and retrogrations (or when the planets are in that part of their orbits in relation to the sun and earth, in which they appear to go backward), happen are not such as they would be if the earth were at rest in the centre of their motions, but precisely such as would happen if the earth move along with all the other planets in the stations and periods assigned them in a system which has the sun for its centre. For as the sun is intended to cheer and irradiate surrounding worlds, it is most fit that those agencies and influences should proceed from the centre of the system from which they are communicated in an uniform and equable mode to the planets in every part of their orbits. Were the earth the centre of the system and the sun and planets revolving around it, the planets, when nearest the sun, would be scorched with excessive heat; and when farthest distant would be frozen with excessive cold.

There is another potent consideration by which the earth's *revolution*, and its position in the system, are demonstrated, and that is that the inferior planets Mercury and Venus, when viewed through moderately good telescopes, are found to assume different phases in different parts of their orbits. Sometimes they appear as a crescent,

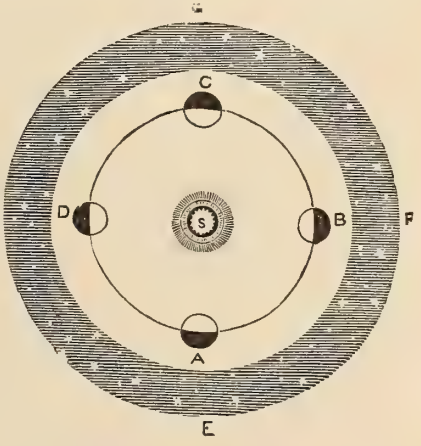
sometimes with a gibbous phase, sometimes like a half moon, or having a full enlightened hemisphere, which could not happen if they revolved around the earth as their centre of motion, and if the earth were not situated in an orbit exterior to theirs. This can be illustrated with peculiar effect by means of an equatorial telescope and a planetarium. Having placed the Earth and Venus in their true positions on the planetarium by means of an ephemeris (a little book showing the positions, etc., of the planets for every day in the year), or the Nautical Almanac, the observer should place his eye in a line with the balls representing these planets, and mark the phases of Venus as seen from the earth, whether a crescent, a half moon, or a gibbous phase. He should then adjust the equatorial telescope for Venus, if she be within the range of view, and he will see the planet with the same phase in the heavens. This exhibition never fails to gratify and convince the observer. But it can seldom be done if we must wait until the planet be visible to the naked eye and capable of being viewed with a common telescope; for it is sometimes invisible to the naked eye for nearly one-half of its course from one conjunction to another. Besides, the phases of this planet are more distinctly marked in the day time, when it is near the meridian, than either in the morning or evening, when at a low elevation, in which case it appears glaring and undefined on account of the brilliancy of its light, and the undulating vapors near the horizon through which it must then be viewed. With an equatorial telescope of a power of 60 or 80 times, most of the stars of the first magnitude and some of those of the second, can be seen even at noonday. Venus may be seen with this instrument in the day time during the space of 19 months, with the interruption of only about 13 days at the time of her superior conjunction, and 3 days at the time of her inferior; so that the phase she exhibits may be seen almost every clear day.

Admitting then that the earth is of globular form, as doubtless all our readers are now prepared to do, it necessarily follows that it may be inhabited on every side, and consequently that those who live on opposite sides of the globe must have the soles of their feet pointing towards each other, and their heads pointing in opposite directions; and that if by any motive power acting from the earth's interior, they should be carried forward in the directions to which their heads point, and the power to be continued in operation they would never meet during all eternity. This would result from the gradual and equal expansion of the earth on all sides by the operation of some expanding force in the interior, of which supposed circumstances we have spoken before. It also follows that could we suppose a hole bored through the earth's centre, commencing at the

point where we now stand, and extending to the opposite side, it would terminate at our antipodes, and would measure nearly eight thousand miles. It likewise is most evident that this terraqueous globe is either at rest in empty space or is moving round its axis every day, and with immense velocity round the sun every year. If we suppose the earth in a quiescent state in empty space, we have presented to our view a globe containing two hundred and sixty-four millions of cubical miles resting upon nothing, and surrounded with the immense bodies of the universe with no visible support to prevent it from sinking into the depth of infinity. If we suppose it to be revolving round its axis and at the same time round the sun, a globe of the huge dimensions now stated, moving with a velocity of over a thousand miles an hour round its circumference, and of at least sixty-eight thousand miles an hour in its course round the sun, without ever intermitting its speed a single moment, we have presented to us a view sublime and astonishing indeed, but not anything more so than what we see in the case of other heavenly bodies of a thousand times larger dimensions, and a view a great deal more reasonable than that of supposing it at rest in space with all the huge bodies of the universe revolving round it as their centre. It is plain, however, that whichever of these suppositions we hold to be the true one, an astonishing and sublime idea is conveyed to our mind.

Phenomena arising from the Earth's motion.

First: if the earth revolve round the sun once every year, it is evident that the sun will appear to make a revolution round the heavens in the same time. In the figure let S represent the sun in the centre, and A B C D, the earth, in four positions; and let us suppose the earth to move in the order of the letters A B C D; it is evident that when the earth is at A, the sun will appear in that part of the heavens in which the stars at G are situated. When the earth has moved to B, the sun will appear to have moved to the stars opposite to H. And, in like manner, when the earth has moved to C, the sun will appear opposite to E. And when it has moved to D, the sun will appear at F. And when the



earth has moved to A, the sun will again appear at G. And, as the earth revolves round the sun in the orbit A B C D, so the sun will appear to a spectator on the earth, to describe the circle in the heavens, E F G H. Hence it is that we see the sun gradually proceeding in his course round the concave of the sky from west to east, at the rate of nearly one degree every day, through the twelve signs or constellations of the zodiac. And at the end of a year he returns to the same point from which he set out. Hence, also, it follows, that, if the plane of the earth's orbit be conceived to be extended to the heavens, it will cut the starry firmament in that very circle in which a spectator in the sun would see the earth revolve every year, while an inhabitant of the earth observes the sun to go through the same circle in the same space of time. This circle, then, is called the ecliptic, the *apparent* path of the sun, the *real* path of the earth through the heavens. And, although the path of the sun, and the particular stars he is passing along, cannot be seen in the day-time, yet, by observing the stars which are directly opposite to him at night, we can tell at any time what particular stars the sun is passing along at every point of his course.

The inhabitants of all the other planets will perceive different motions in the sun as we observe, but performed in different periods of time, according to the times of their annual revolutions. An inhabitant of the planet Mars, for example, would see the sun apparently revolving round him in the heavens in the space of about one year and ten months. The circle which the sun would appear to him to describe would not be very different from that of the earth, as the inclination of his axis to the plane of his orbit is not very different from that of the earth to the plane of the ecliptic. An inhabitant of the planet Jupiter would see the sun apparently revolving around him describing a circle in the heavens in the space of twelve years. This circle would not be exactly the same as our ecliptic, because the orbit of this planet is somewhat inclined to that of the earth; but it would pass very near it. In the space of one of our years the sun from Jupiter would appear to pass through only a twelfth part of the circumference of the heavens. The sun from Saturn will appear to move in another circle in twenty-nine and a half years; from Uranus, in another circle, in about eighty-four years, from Neptune in one hundred and sixty four and three fourth years; and a spectator in Venus will see the sun moving in a circle different from all these with greater apparent rapidity, in the space of seven and a-half months. All these apparent motions of the sun arise from the real motions of the respective planets. Secondly; the annual motion of the earth shows why we behold one set of stars in our firmament at one season

of the year, and another set of stars at a different season. For example, the stars and constellations which, in our northern latitudes, are seen in the south during the winter months, are altogether different from those which are seen in summer; and those stars which surround the pole in the north, and which never set, if they are below the pole in winter, they will be seen as far above the pole in summer. At the equator, where all the stars north and south rise and set, the stars which are seen in the middle of winter are all completely different from those that are seen at the same hour in the middle of summer. This is easily explainable by the preceding diagram, in which the earth, in four situations in its orbit, appears half enlightened and half in the dark, representing day and night. When it is at A, the sun will appear at noon at G, and obscure all the stars in the hemisphere F G H; when, as at midnight, the point of the heavens E will be in the meridian, and all the stars in the other hemisphere, F E H, will be visible. Three months afterwards when the earth comes to the situation B, the sun at noon will be seen at H, and all the heavens, G H E, will be day, illuminated by the sun; and over all the other half, E F G, the stars will shine at night; consequently, the stars in the quarter F G will now be visible, which, in the former position, were obscured by the sun; and those in the quarter H E, formerly visible will become obscured by daylight. In like manner when the earth is at C, the heavens H E F will be day, and F G H night, when all the stars which were obscured when the earth was at A, will not be visible. And, lastly, when the earth is at D, the stars and constellations in the hemisphere E F G will be obscured by the light of the sun, and those on G H E will be visible during the night. Hence all who are accustomed to observe the heavens will have seen that the bright constellation Orion, the brilliant star Sirius, which follows it, and the Pleiades, or Seven Stars, which are visible in the southern sky during the winter and the approach of spring, are never seen during the summer months, because the sun is then illuminating that portion of the firmament where they are situated; but, being above the horizon in the day-time, they may be seen by means of equatorial telescopes.

By observation of the starry heavens we find that the stars never alter their positions in relation to each other. They appear to move around us in one compact body as the figures of the constellations do on a celestial globe, when that instrument is turned round its axis; but the stars of one constellation never approach or move away from those of another. If, for example, we direct our attention to the stars of the Great Bear in the northern sky we shall find that at all hours of the day and night, and at every season of the year they pre-

sent the same definite figure, and maintain the same relative positions to each other, without any sensible variation of distance or magnitude; and the same may be observed from one year to another. Hence, as before mentioned, they are usually denominated the "Fixed Stars." But when we examine the heavens with more care and minuteness we occasionally perceive a few bodies, having the appearance of stars which when carefully watched for a few weeks or months, are found shifting their positions with relation to the surrounding stars. In most cases their movements are toward the East, but not unfrequently toward the West; and at certain times no motion can be observed for a considerable number of days. The bodies which are thus perceived to change their positions among the stars are called planets, which word, as before mentioned, means "Wandering stars." Until very recently there were only ten bodies of this description known to astronomers, and the paths of these had been traced in the heavens and their motions accurately ascertained. Nearly one hundred of these bodies, all of them of small dimensions, have lately been discovered in the space intervening between Mars and Jupiter. Five of the planets are visible to the naked eye, and these were known to the ancients, who gave them the following names, derived from the heathen mythology: Mercury, Venus, Mars, Jupiter and Saturn; and if we count the Earth in it makes six. By long and careful investigations of the phenomena and motions of these planets, astronomers have ascertained that they all move round the sun, as the centre of their motions; and along with the earth, the minor planets and the moons form one grand and harmonious system with which we are intimately connected, and which is called the solar system.

The following is a list of the principle bodies of this group, in their order in space; First the Sun, the common centre around which the planets all revolve; Vulcan, a planet very recently said to be discovered, but whose existence is as yet by some considered doubtful, Mercury, and Venus; which all are distinguished as the inferior planets, their orbits being included within that of the earth; the Earth, and the superior planets; Mars, the minor planets or asteroids, Jupiter, Saturn, Uranus, and Neptune. There are also many secondary planets or moons, as well as comets, which are reckoned as belonging to this system: besides there may be many other planetary bodies in it; doubtless there are many, that yet remain undiscovered.

As we enquire more particularly into the movements of these bodies we discover many striking points of similarity. They all move round the sun in the same direction, and in elliptical paths of no great eccentricity. They are all opaque bodies, like the earth, shin-

ing only by reflected light; and all rotate on their axes, so as to produce the alternation of day and night. Their orbits, too, are all inclined to the plane of the ecliptic or earth's orbit. The following is a method by which we may obtain a tolerably correct idea of their comparative magnitudes and distances, and the relative dimensions of their orbits. Select a large, clear space, and place nearly in the centre, a ball of about two feet in diameter to represent the sun; Vulcan will then, supposing such a body to be really existing, be represented by a small pin's head 27 feet from the globe; Mercury by a mustard seed 82 feet distant; Venus by a pea at a distance of 142 feet; the earth by a pea of about the same size, or slightly larger, at a distance of 215 feet; Mars by a large pin's head at a distance of 327 feet: the minor planets or Asteroids by very small grains of sand between 500 and 600 feet distant; an orange of about 2½ inches diameter, and 1120 feet distant, will represent Jupiter; one about 2 inches in diameter and distant two-fifths of a mile will stand for Saturn; a full-sized cherry, three quarters of a mile distant, Uranus; and a plum, a mile and a quarter off, for Neptune. On this scale the distance of the nearest fixed star is reckoned at 7,500 miles.

The Sun.

As the sun is by far the largest of these bodies we shall treat of him first; and the question which at once suggests itself is, what is the distance of this body? The accurate solution of this question is found to be one of the most important problems in astronomy, as this distance is taken as the measure for determining the distances and magnitudes of the other heavenly bodies. There has always been great difficulty experienced in determining the distance of the sun, owing to the fact that the earth's diameter, being so small compared with the sun's distance, did not afford a base line of sufficient length for a triangle by which the sun's parallax, and thence his distance, might be obtained. There has however, been obtained what is considered as a near approximation to it, by means of observations taken of the transits of Venus. As a result of these observations the sun's mean distance is determined to be about 91,430,000 miles. Until recently the sun's distance has been taken at 95,000,000 miles; but subsequent investigations have shown an error in these measurements. The numbers here given, however, are only given as approximations subject to future correction. The next transit of Venus, is anxiously awaited to settle the question decisively. It may be remembered, too, that the distance given above is the *mean*, the difference between the minimum and

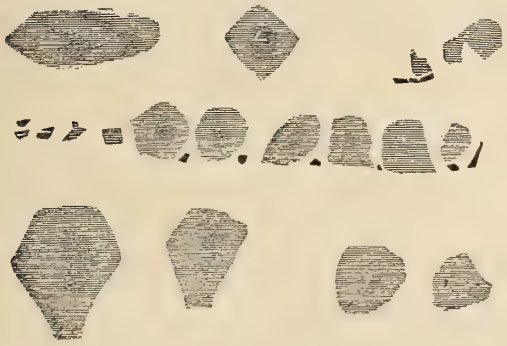
maximum being about 3,000,000 miles. Having ascertained the distance of the sun, and knowing its apparent diameter to be about 32′, a little over half a degree, we obtain his real magnitude by a simple proportion; and in this way we find his diameter to be, in miles, about 853,000, or more than one hundred and eight times that of the earth. The sun's volume is so great that it would require over 1,300,000 globes of the size of the earth to be rolled into one to equal it; and it is computed to be 450 times as large as all the known planets which revolve around it taken together. Its surface contains more than 12,000 times the number of square miles on our globe. The reason why the sun appears so small to our eyes, although being a globe of such immense magnitude, is owing to its great distance from our world. This distance may be illustrated somewhat as follows: It would require a cannon ball, though flying continually with a velocity of 500 miles an hour, 21 years before it could reach the sun. Suppose a steam carriage to set out from the earth in the direction of the sun, and to move without intermission at the rate of twenty miles an hour, it would require over 520 years before it had traversed the whole space which intervenes between us and that luminary. How wonderful then that the sun at such a distance should exert his attractive power upon the earth, raise the tides in the oceans, and diffuse light, heat, color, and animation over all its regions! Some idea can be formed of its light and heat when we remember the enormous distance at which we are from its surface, and the degree, notwithstanding this, to which we feel its power and influence. Its light is computed to be equal to that of 5,500 standard candles placed at a distance of a foot from the given surface to be illuminated. We naturally want to know something more about the physical properties of this wonderful and stupendous orb; but we are to a great extent baffled in this enquiry, just as we are in regard to the exact physical properties of the bodies which make up the earth's interior; though many great and important discoveries have been recently made by means of spectrum analysis. In this way it has been ascertained that many of the metals present in the earth are also present in the sun.

When pieces of very dark glass are placed in front of the eye-piece of a telescope, so as to screen the eye from the intense glare of the sun, its surface may be carefully examined, and it is found to present an appearance by no means uniform. Many dark spots termed maculæ are found at times to exist on its surface. See figures 102 and 103. The centre of these is usually of a very dark color, and is surrounded by a margin much lighter in appearance which is known as the penumbra. These spots are very irregular in shape, and frequently

change in size or disappear altogether. This may in the main be accounted for by the rotation of the sun on his axis, by which different portions of his surface are presented to the earth in succession. The spots appear first on his eastern margin, at which time they appear narrow and somewhat obscure; they move gradually onward to the



Fig. 102.



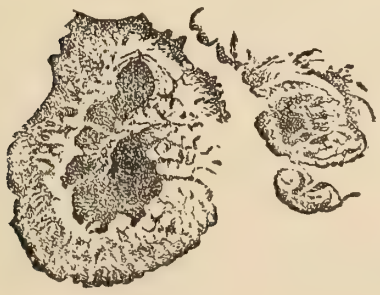


Fig. 103.

centre of the disc, when they appear larger and more distinct; afterwards they proceed toward the western margin, where they again appear narrow and obscure; and after a period of about 13 days from their first appearance on the eastern edge, they disappear from the western limb; and, in many cases, they again appear on the eastern limb, after the same period of 13 days. But they are frequently somewhat changed in their aspect before they reappear; and in numerous instances, after disappearing from the sun's western boundary, they are never again visible in the same shape; but other spots at uncertain intervals, are seen diversifying the solar disc; though not unfrequently scarcely a single spot is to be seen on the whole surface of the sun. The spots appearing narrower and less distinct on the eastern and western limbs, is owing to our viewing obliquely those parts of the sun's surface. The conclusions which may be deduced from these circumstances are: 1st. That the sun is a globe and not a flat surface, as it appears to the naked eye; otherwise the spots would appear equally large and distinct on every part of its surface: 2nd. That this luminary moves round his axis in the same direction as the rotation of the planets; for its spots do not alter their places on its disc, but are carried along with the whole body of the sun. The time of the apparent revolution of these spots is 27 days, 8 hours; but the real period of the sun's rotation on its axis is 25 days, 7 hours, and 48 minutes; and therefore, the spaces about the sun's equator move at the rate of 4,407 miles an hour. *

The solar spots are of different sizes, and of different shapes. Their dimensions vary from the $\frac{1}{6}\frac{1}{0}$th to the $\frac{1}{3}\frac{1}{0}$th of the sun's diameter. The smallest of these spots which can be distinctly seen are nearly 1000 miles in diameter. Spots the $\frac{1}{5}\frac{1}{0}$th part of the sun's diameter, which are frequently seen, are 17,600 miles in diameter, or more than double the diameter of the earth; and if the spot be considered only as a plane, and somewhat circular, it will contain a considerably greater area than the whole terraqueous globe, and sometimes a spot of this vast size disappears in a few weeks not unfrequently in a few days. Sometimes no spot is to be seen on the solar disc for weeks and even for months together; at other times, over a hundred spots of different sizes are dispersed over its surface at one time. In such cases, there are generally five or six large spots such as that alluded to above, accompanied with ten, fifteen, or twenty smaller spots; but after disappearing at the sun's western limb, it is seldom they come round again in the same order as before. Some appear to have been

* This is obtained by dividing the sun's circumference 2,679,785 miles by the number of hours in which the rotation is performed, namely 608; and the quotient is the rate of motion per hour.

altogether dissipated, and others to have changed their shape and relative positions to surrounding spots in which they formerly appeared. Some of these spots of considerably larger dimensions than the earth, containing three or four hundred millions of square miles, occasionally appear and vanish in the space of 48 hours. The parts of the sun's surface where these spots most frequently appear, are those which lie adjacent to its equatorial regions; no spots being ever seen near its northern or southern poles. In some years these spots appear in great numbers, and seldom a week passes without a few of them being seen while in other years comparatively few are visible. Careful records have been kept of their appearance.

They are found to diminish in frequency for about five or five and a half years, when the number is at a minimum, the surface being then free from them on more than half of the days of observation. They then increase again in number for the next five and a half years; and thus their period appears to be about eleven years. A remarkable fact has been noted in connection with this, and that is that the daily variation of the magnetic needle is found to have a precisely similar period, and to increase or diminish with the increase or diminution of the number of spots. Other phenomena seem further to show that there is an intimate relationship existing between the movements of the magnetic needle and the sun. Further observations will doubtless reveal to us more of this natural bond, and new discoveries on the subject are frequently being made.

Besides the dark spots, which we have now described, there are spots which display a bright and mottled appearance, and which it is difficult in most cases to distinguish from the real body of the sun. These are termed *faculæ*. They are chiefly to be seen when they first appear on the eastern margin of the sun, and when they approach near the western limb; but they are rarely seen near the middle of the disc. They are most generally seen in connection with clusters of dark spots, and when they are first seen near the eastern limb they frequently indicate that dark spots are about to appear. They appear like luminous mountain ranges, plainly indicating that the sun is not a smooth surface, but is diversified with elevations and depressions, or in other words, with mountains and vales of stupendous dimensions; otherwise we could by no means perceive them at the immense distance at which they are placed from us.

Recent telescopic investigations, however, show that, beside the markings of which we have spoken, the whole surface of the sun has somewhat a mottled appearance. According to Nasmyth it presents an appearance as if it were covered over with scattered filaments, shaped like willow leaves. The whole question of the physical con-

stitution of the sun is now engaging the attention of many astronomers. A total eclipse of that body presents a good opportunity for the observation of many points, and among the most remarkable features in connection with these phenomena is the presence of dark flames or protuberances surrounding the dark body of the moon at the moment of total obscuration. These have recently been seen at other times also, and are believed by some to be connected with the solar atmosphere. They probably arise from certain portions of the sun being for the present more combustible, and in a state of more intense incandescence than others.

The question will naturally suggest itself—if the sun is continually in a state of combustion, will it not at some time be consumed? A knowledge of chemistry will go far toward answering such a question as this. Bodies while undergoing combustion are also undergoing chemical decomposition, or a separation of their component parts into their primary elements, but not a single particle of them is

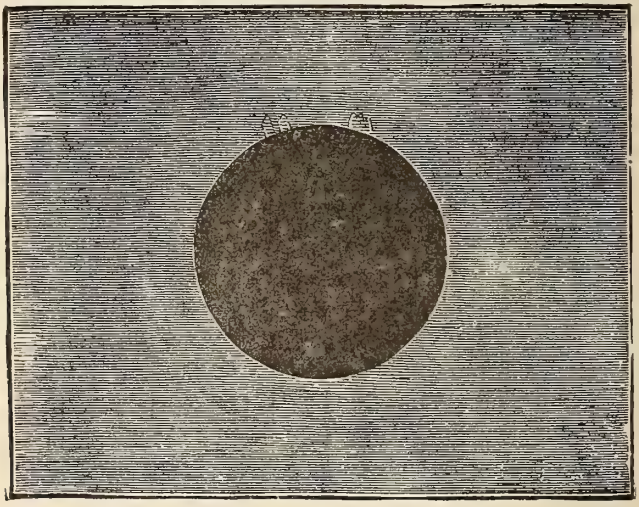


Fig. 104. ECLIPSE OF THE SUN, JULY 18, 1860.

lost by the process. Light is only a manifestation which attends combustion, and is equally attendant upon the combination as upon the separation of chemical elements; the matter of the body undergoing combustion, unless what residuum there may be from it, is resolved into gaseous elements which ascend to the level of their gravitation in their atmosphere, and there float, until, perhaps, recombining with other chemical elements for which they have an affinity, they thus return to the surface of their sphere again, it may be—as in the case of the earth's atmosphere they do—in the form of a meteor, but in some way or other they eventually return to the surface

of their spheres, not a particle of them being lost by the manifestation of light. By this it is understood that the elements of the sun in connection with which light is manifested, may go on separating and recombining under the influence of combustion * without any actual waste or exhaustion of matter, as long as the want of equilibrium between his elements makes combustion to be a consequence of their contact. The constitution of the sun appears to be of such a nature, and such is the purpose which it answers in the system, that it may have ever existed and may ever exist luminous. Albeit, what hinders that during certain periods of the past our system may not have been enlightened by some other luminous body?

According to Sir Wm. Herschell's estimate the atmosphere of the sun is not less than 1840 and not more than 2760 miles in depth. This he regards as the outermost coating of the sun, or his visible surface; and under this superior stratum he conceived there is another, more dense and highly reflective, which throws back the light of the upper regions, and that this lower atmosphere constitutes the umbra of the spots, and that the dark central parts of the spots or the nuclei, are part of the solid matter of which the sun's body is composed. According to such views the globe of the sun may be regarded as of considerable density, not altogether unlike the earth and the other planets, and not a very great portion of its surface, comparatively speaking, as being in a state of combustion; and there is no improbability in supposing it to be inhabited with sensitive and intelligent beings having constitutions adapted for their situation; and it may constitute the most glorious habitation connected with the solar system. It is evident, however, whatever may be the real nature and constitution of this luminary, from the rapid and extensive changes which are seen to take place in connection with the spots on his surface that there are forces of prodigious power in continual operation there, producing the most astonishing effects in short spaces of time. And such changes are doubtless necessary for preserving the present state of the sun, for enabling him to diffuse light and heat, and to act as the soul of surrounding worlds. This magnificent luminary is the great source of light and heat and color to our world; and to all the planetary globes, with their satellites and rings, which belong to our system. By its influence it cheers, animates, and adorns a retinue of worlds; by its attractive energy it directs their motions, and confines them all to their proper paths, so that none can wander

* There are, however, some who do not consider the sun's light to arise from combustion. Among these were Sir Wm. Herschell and Humboldt who supposed the sun's outer atmosphere to be in a state of permanent luminosity, by means of electric or magnetic agency, that is to say, the sun's light would be somewhat after the nature of a continual "Northern Light."

from their course or interfere with the others. Without the influence of this luminary darkness and all its gloomy accompaniments would involve our world; the beauties which adorn the face of nature would nowhere be seen; the warbling of the birds would not be

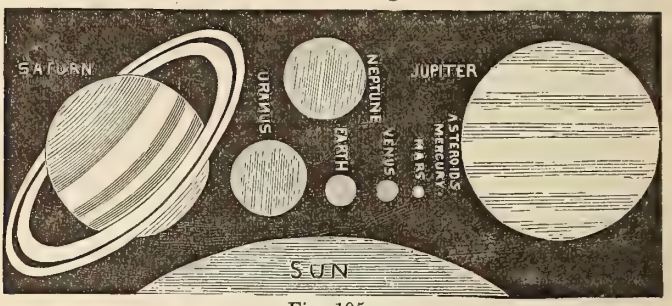


Fig. 105.

heard; the flowers would not be decked in their gay colors, nor shed their rich perfumes; our earth would be a hideous chaos. Can we reflect therefore upon the grandeur and magnitude of this luminary, and the manifold beneficial effects which it produces in our world, without raising our thoughts to Him who appoints it for this purpose! In all our surveys and contemplations of nature it becomes us to raise our thoughts from the effect to the cause, from the creature to the Creator,—for God is the Creator of the solar light, as of all other creatures,—and to give Him the glory due to His name.

The Planet Vulcan.

We now pass on to notice the planets which revolve in ceaseless courses round the sun. About fourteen years ago Le Verrier, a French astronomer, having very carefully examined the movements of the planet Mercury, found in it a slight variation which he could account for only by supposing that the mass of the planet Venus was incorrectly ascertained, or else that there was a planet revolving round the sun in an orbit within that of Mercury. He published some statements to this effect in the hope that some further light might be thrown on the matter. It must be remembered, however, that Mercury itself, which until now was considered the nearest planet to the sun, can only be seen at occasional intervals, and then with difficulty, on account of its apparent proximity to the sun; and that, therefore, a planet much nearer to the sun would never appear far enough removed from that body to be clearly discerned. Almost the only opportunity of observing it then would be when it should be in transit. As soon as Le Verrier had published his statement a French physician, named Lescarbault, announced that on the 26th of March, 1859, he had seen a small body pass across the sun, but had not liked to announce the fact before, no other observer having called attention to it. Le

Verrier at once saw him and carefully enquired into the matter. At first he thought the whole affair was a delusion; but after questioning the physician, and enquiring as to the apparatus he had used, he became convinced that he had indeed discovered a new planet, which was then called Vulcan. From this one observation no very decisive details could be drawn so as to calculate its orbit accurately; its distance from the sun was, however, set down at about 14,000,000 miles, and its time of revolution in its orbit at a period of a little under twenty days. It was conjectured that a second transit might be observed in March, 1860; but though a careful watch was kept it was not seen; nor has it, that we have learned, been seen again up to the present time, excepting that was it which was observed by Mr. Lummis of Manchester, England, on March 20th, 1862, when he saw a black spot pass across the sun's disc, and conjectured it might be a planet in transit. Instances have also been previously recorded of spots resembling planets being seen on the sun; and future observations will perhaps show, that the planet really exists, as well as some others, in that luminous space, and that these have been transits. Astronomers, however, do not pronounce definitely either way as to the alleged planet, and are only awaiting the results of future investigations concerning it.

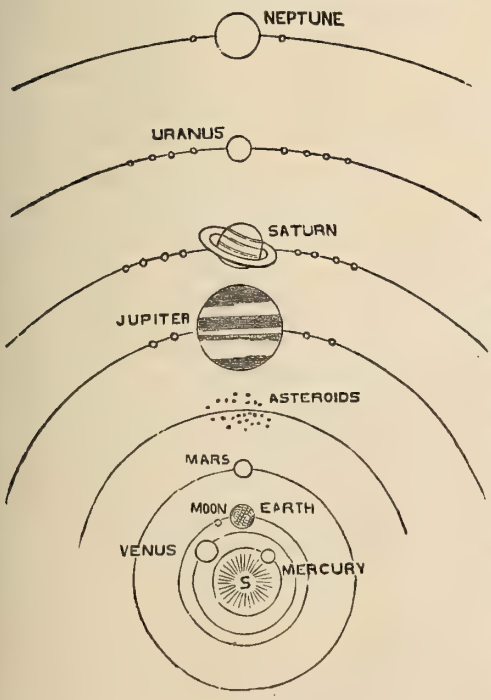


Diagram illustrating the relative positions, etc., of the sun, planets, and planetoids.

The Planet Mercury.

This planet has been known from the earliest ages of astronomy of which we have any records. This speaks well for the research of the early astronomers; for, owing to its small size, and its proximity to the sun, it is very difficult to obtain a satisfactory view of this planet. It is said that the celebrated Copernicus, although the greatest part of his life was devoted to the study of the heavens, never once succeeded in obtaining a view of this orb. The greatest distance at which it can ever be from the sun is 29°, and sometimes its elongation, before it begins to return, is,

not more than 16½°. The mean distance of Mercury from the sun is nearly 35,390,000 miles. Its eccentricity, that is, the distance from the centre of its orbit to the centre of the sun, being very great (about seven millions of miles), its distance varies between 28,000,000 and 43,000,000 miles. It performs its journey round the sun in a trifle over 87 days, so that its year is less than a fourth the length of ours. Its speed in its orbit is far greater than that of any of the other known planets; being computed to be at an average 109,800 miles an hour, or 1,830 miles a minute; hence in the ancient mythology Mercury was represented with wings to his feet; and his mane is said to signify "the swift messenger." This planet is but small, its diameter being reckoned at 2,960 miles, or rather more than one-third that of the earth. Hence its circumference, or a line extending quite round it, would measure about 9,299 miles; and the number of square miles on its surface would be nearly 27,525,040. Its period of rotation round its axis is 24 hours 5½ minutes, and thus it clearly resembles the earth as to the length of its day. A transit of this planet occurs whenever it is in one of the nodes (that is, at the point where its orbit intersects that of the earth), at the time of an inferior conjunction. The next time this will occur will be on the 6th of May, 1878. If the orbit of this planet were in the same plane with that of the earth it would transit the sun's disc at every inferior conjunction, or three or four times every year. But as its orbit is inclined to the ecliptic a transit can happen only when it comes to the inferior conjunction at the time when it is at or near its nodes, and when the earth is in the same longitude; and this occurs only at intervals of several years. This planet exhibits phases corresponding to those of the moon. On account of its proximity to the sun few discoveries have been made on its surface by the telescope. It has been observed, however, that when it appears as a crescent one of its horns is truncated, or cut off at the point, by which the period of the planet's rotation round its axis has been determined. This truncature is doubtless the effect of elevations and depressions on its surface; and hence some astronomers have concluded that mountains of considerable height exist on Mercury, one of which is estimated to be 8 miles in perpendicular altitude. The quantity of light received on Mercury is nearly seven times that which we receive; and the sun will appear from Mercury seven times the size he does to us. This planet is supposed also to be enveloped with an extremely dense atmosphere.

Though diminutive in its appearance, and seldom seen by the inhabitants of the earth, we can scarcely doubt that there exist on Mercury millions of sentient and intelligent creatures, perhaps

superior in scale of being to man, with constitutions fitted for that sphere in which they are, and with mental powers which qualify them to know, to love, and to adore their great Creator.

Appearance of the Heavens as Viewed from Mercury.

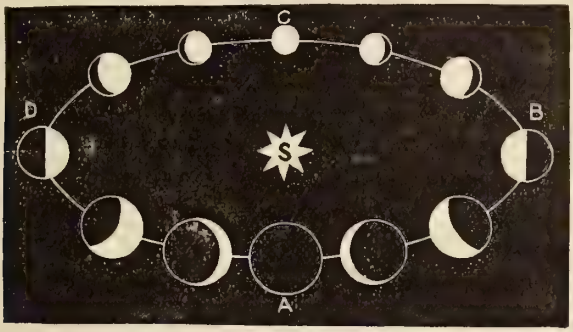
The situation of this planet being so near the sun has prevented us from discovering various particulars which have been discovered in relation to several of the other planets; and therefore not much can be said with respect to the scenery of its firmament. The starry heavens will appear to move around it every 24 hours, as they do to us; but as the direction of its axis of rotation is not known we cannot tell what stars will appear near its equator or its poles. The sun will present a surface in the heavens seven times as large as he does to us, and of course will present a very grand and splendid appearance in the sky, and will produce a corresponding brightness and vividness of color on the objects which are distributed over the surface of the planet. Both Venus and the Earth will appear as superior planets; and when Venus is near its opposition to the sun, at which time it will rise when the sun sets, it will present a very brilliant appearance to the inhabitants of Mercury, and serve the purpose of a small moon to illuminate the evenings in the absence of the sun. As Venus presents a full enlightened hemisphere at this time to the inhabitants of Mercury, it will exhibit a surface six or seven times larger than it does to us when it shines with its greatest brilliancy, and, therefore, will appear a very bright and conspicuous object in the firmament of this planet. At all other times it will appear at least two or three times larger than it ever does to us. It will generally appear round; but at certain times it will exhibit a gibbous phase, as the planet Mars frequently does as seen from the earth. It will never appear to the inhabitants of Mercury in the form of a crescent or half moon, as it sometimes does through our telescopes. There is no celestial body within the range of this planet, of which we have any definite knowledge, which will exhibit either a a half moon or a crescent phase, unless it be the supposed planet Vulcan, and unless the planet itself be accompanied with a satellite. The earth is another object in the sky of Mercury which appears next in splendor to Venus. The earth and Venus are nearly of an equal size; but the earth being nearly double the distance of Venus from Mercury its apparent size at the time of its opposition to the sun is only about half that of Venus. The earth, however, at this period will appear in the firmament of Mercury of a size and splendor three or four times greater than Venus does to us at the time of its great-

est brilliancy. Our moon may also be seen, like a small star, accompanying the earth, sometimes approaching to or sometimes receding farther from the earth, and sometimes hidden from the view by passing across the disc of the earth, or through its shadow. It will probably appear about of the size and brightness of Mars, as seen from the earth. The earth, with its satellite, and Venus will be seen near the same point of the heavens at the end of every nineteen months, when they will appear for some time the most conspicuous objects in the sky, and diffuse a considerable portion of light in the absence of the sun. At other periods the one rises in the eastern horizon as the other sets in the western; so that the inhabitants of Mercury are seldom without a conspicuous object in their nocturnal firmament, diffusing an illumination far superior to that of any other stars or planets. The earth is in opposition to the sun every four months, and Venus after a period of five months. The planets Mars, Jupiter, and Saturn will appear with a somewhat inferior degree of magnitude and brilliancy than they do to us, particularly in the case of Mars. The period of the annual revolution of Mercury being 88 days, the sun will appear to move from west to east through the circle of the heavens at a rate more than four times as great as his apparent motion through the signs of our zodiac.

The Planet Venus.

This planet is the next in order from the sun. It has been known from remote antiquity as the morning and the evening star, because in one part of its course it makes its appearance in the West in the evening before any other star is visible, and in another part of its course it appears in the East in the morning, ushering in the dawn, and giving notice of the approach of the rising sun. So brightly indeed does it shine that it is visible at times to the naked eye during the day, and casts a shadow at night. But its apparent size and brilliancy vary very greatly, as will be easily understood if we remember that when in its inferior conjunction it is within twenty-five millions of miles of the earth; while when it is in superior conjunction this distance is increased by the diameter of the orbit of Venus, and becomes nearly one hundred and sixty millions of miles. The quantity of light which this planet receives from the sun is nearly double that which falls upon the earth, owing to its greater nearness to the source of light; so that the sun will appear from its surface twice as large as it does to us. When in the part of its orbit directly between the earth and sun, that is, in inferior conjunction, it is at its least distance from us, and hence would appear most brilliant if

it were luminous. If indeed at this point its enlightened side were turned toward the earth it would present a surface twenty-five times larger than it generally does, and shine with the splendor of a small

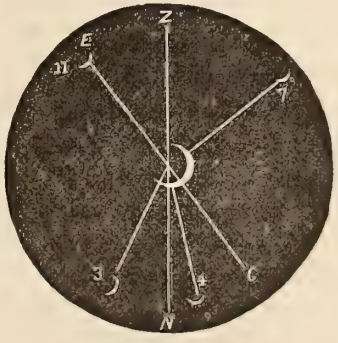


moon; but as its dark side is now turned toward the earth it is invisible just as the moon before new moon. Besides this, it appears so close to the sun as to be lost in his brightness, unless it should happen to pass across the sun's disc, where it appears as a round black spot. This will be seen as at A in the figure where S in the centre represents the sun, and the earth is conceived to be in a line with the sun and Venus on the dark side of the latter. As the planet now travels onwards towards B it gets further and further removed to the West of the sun, and thus rises earlier and earlier, being then known as Lucifer or the morning star. At the same time its bright hemisphere becomes partly turned toward the earth. When exactly half enlightened, as at B, it is at its greatest elongation from the sun, being distant about 48°. Its period of greatest brilliancy is, however, a little before this when about one-third of its disc is illuminated. Having attained its greatest elongation, it seems stationary for a short time and then appears to return toward the sun, an increasing portion of the disc being illuminated, though, on account of its increasing distance, it appears smaller. It is then lost again in the sun's rays for a time, and when it reappears to the East of the sun, it does not rise till after that luminary, and, therefore, is no longer the morning star. At this time, however, it remains visible for some time after sunset, and is known as Hesperus, or the evening star. After attaining its greatest eastern elongation at D it returns to A to go through the same phases again. While travelling about half the distance between D and A, or that half next to D, it appears stationary, in the other half, or that nearest to A, it appears to retrograde; and so while travelling half the distance from A to B, or that half nearest A, it appears still to retrogade, while in the other half, or that nearest to B, it appears stationary. These phases

are not visible to the naked eye, and hence the absence of them was adduced as an argument against the truth of the Copernican system. This was before the invention of the telescope. Galileo, however, in 1610, on turning his newly-constructed telescope to the planet, at once discovered the fact of their existence. This is one of the strongest arguments adduced in proof of the system which has the sun as the centre of the planets' motions. The period which elapses between one inferior conjunction and another, or that is occupied in going through this cycle of changes is 584 days, and this is called its *synodic* period. The time, however, that is occupied in completing a circuit round the sun is only 224 days and 17 hours. At first sight these results appear inconsistent, but the apparent discrepancy vanishes when we recollect that the earth is itself in rapid motion, so that by the time Venus has completed a revolution round the sun, the earth has travelled round a large portion of its orbit, and Venus has to overtake it before another conjunction can take place.

The distance of Venus from the Sun is about 66,130,000 miles; and its orbit is nearly circular, its eccentricity being less than half a million of miles, or about the 1-276th part of its diameter, so that its distance varies but slightly. When viewed through a good telescope this planet is a very beautiful object, especially when near its inferior conjunction, so as to appear in the form of a crescent; but the brilliancy with which it shines is so great that no distinct markings can be made out on its surface. The inner edge is, however, considerably indented, indicating the presence of inequalities on its surface; from this some observers have calculated that the height of its mountains is much greater than that of any on the earth. The height of such elevations is ascertained from the length of their shadows. M. Schroter, a celebrated German astronomer, estimated the perpendicular height of one of these mountains to be ten and a half English miles, and that of another no less than nineteen miles. Although these elevations so far surpass the highest mountains on our globe, yet, on this account, such estimates should not be considered as improbable. For, in nature, there is an endless variety, and our observations on the moon and nearest planets show us that every planet differs from another in the peculiar features of its surface. Such lofty elevations must add to the sublimity of nature on the surface of Venus, and will afford, from their summits, prospects far more extensive than we can now conceive. M. Schroter also deduced from several observations that Venus has an atmosphere of considerable extent, the densest part of which is above three miles high. A similar conclusion was deduced by a number of observers in different places, when viewing the transit of this planet in 1761. At the time when the planet

entered on the sun's disc, and when it was about to emerge from the eastern limb, a faint penumbra, or dusky shade, was seen surrounding the planet, which indicated an atmosphere of considerable height. The period of the rotation of this planet on its axis is not very different from that of the earth, being twenty-three hours twenty-one and a-half minutes; its day is, therefore, but thirty-five minutes shorter than ours. Its axis has an inclination of 73½°. Its diameter also closely approaches in dimension that of the earth, being 7,510 miles; so that the planet which is nearest to us is found in many important respects to resemble the earth very closely; and analogy leads us to infer that in many other respects it may be a counterpart. Its circumference, or a line extending quite round it, measures 23,593 miles, and the number of square miles on its surface is 177,183,430. Several observers assert that they have seen a satellite accompanying Venus. Observations of some able astronomers, who have given some attention to it, have as yet failed to corroborate these statements. The testimony of Mr. Montaigne, however, who observed it on several successive occasions, we consider to be conclusive evidence as to its existence.* But it is evident this satellite would be difficult



* Numbers 3, 4, 7, 11, in figure 107, mark the situations of the satellite, as seen by Mr. Montaigne, on May 3rd, 4th, 7th and 11th, 1760. On May 3rd, he perceived, at 20, distance from Venus, a small cresent, with the horns pointing the same way as those of Venus. Its diameter was one-fourth that of its primary; and a line drawn from Venus to the Satellite, made below Venus, an angle with the verticle of about 20° toward the south, as seen in the figure, where Z N represents the vertical, and E C a parallel to the ecliptic, making then an angle with the vertical of 45°. On May 4th, at the same hour, he saw the same star, distant from Venus about one minute more than before, and making an angle with the vertical of 10° below, but on the north side, so that the satellite appeared to have described an arc of about 30°, whereof Venus was the centre, and the radius 20°. The two following nights being hazy, Venus could not be seen. But on May 7th, at the same hour as on the preceding days, he saw the statellite again but above Venus, and on the north side, as represented at 7, between 25′ and 26′ upon a line which made an angle of 45°, with the vertical toward the right hand. On May the 11th, at nine o'clock, p.m., the only night when the view of the planet was not obscured by moonlight, twilight or clouds, the satellite appeared nearly at the same distance from Venus as before, making with the vertical an angle of 45° toward the south, and above its primary. The light of the satellite was always very weak; but it had always the same phase with its primary, whether viewed with it in the field of the telescope or alone by itself. He imagined that the reason why the satellite has been looked for so often without success might be, that one part of its globe was crusted over with spots, or otherwise unfit to reflect the rays of the sun with any degree of brilliancy, as is supposed to be the case with the fifth satellite of Saturn.

to detect, its diameter being so small as only one-fourth that of its primary. It could not be seen at superior conjunction of the planet, for then it would be overpowered by the light of the sun; nor would it be easily seen in any other part of the orbit, its enlightened part being so extremely small. The best time to see it would be at the time of the planet's greatest elongation, when it would appear about half enlightened. Observers should not despair of finding it, for the satellite exists, awaiting their discovery.

The last transits of Venus happened in 1769, when the British Government sent out an expedition for the purpose of making observations; and on December 9th, 1874, when not only the British, but the United States, and other governments, sent out expeditions to different parts of the earth for the same purpose. The next transit will take place in 1882; and none will occur after that till June 8th, 2004.

This planet is doubtless well replenished with inhabitants, and may far surpass the world in which we dwell, not only in point of population, but in sublimity of scenery. Its superficial area is nearly that of our globe; and it does not appear as if a very large portion of it is covered with water; otherwise it would not shine with such uniform brilliancy; the water not being as good a reflector as the solid, rough surface of the land. This beautiful planet, distinguished above all others by its great brilliancy, is occasionally alluded to by the writers of the Scriptures as "the son of the morning," "the day star," and "the bright and morning star," emblematic of the enlightening and cheering effect of truth and godliness upon the minds and hearts of sinful men when the "day star" from on high hath risen in their hearts. When contemplating the bright luminaries of the sky, and especially the morning star, the placid influence they diffuse and the harmony with which all their movements are conducted, we can scarcely refrain from contrasting those scenes with the darkness and disorder which prevail in the moral world. While the sun diffuses his light by day, and the moon and the stars shed their mild radiance by night, it is still necessary to the well-being and happiness of mankind that intellectual light and sacred joy should be diffused in their minds and hearts, of which the light of these luminaries has often served as an emblem. When the morning star makes its appearance near the eastern horizon, it is a sign that the sun will ere long arise, and that the darkness of night will soon be dispelled. When the day star arises in the benighted mind, it intimates that now the light of Divine truth has begun to irradiate it, and to dispel the darkness, with all its miserable accompaniments, which formerly reigned in it; it is a sign that this light will still increase and shine more and more unto the perfect day.

Celestial Phenomena, as Viewed from Venus.

To the inhabitants of this planet the firmament will present an aspect nearly similar to that of Mercury, with a few variations. Mercury is to Venus an inferior planet, which never appears beyond 34° from the sun. It will appear in the evening after sunset for the space of two or three hours when near its elongation, and in the morning before sunrise, when in the opposite part of its course; and will be alternately a morning and an evening star to Venus, as that planet is to us, but with a less degree of splendor. The most splendid object in the nocturnal sky of Venus is the earth, when in opposition to the sun, when it appears with a magnitude and splendor five or six times greater than either Jupiter or Venus appears to us at the time of their greatest brilliancy. It will serve, in a great measure, the purpose of a moon to Venus, if this planet have no satellite; and will cause the several objects on its surface to project distinct and well defined shadows, as our moon does when she appears a crescent. Our moon, in her revolutions round the earth, appears also a prominent object in the heavens of Venus, and probably appears about the same size that Jupiter does to us. Her occultations, eclipses, and transits across the earth's disc will be distinctly visible. With telescopes such as the best we possess, the earth would appear from Venus a much larger and more variegated object than any of the planets do to us when viewed with high magnifying powers. The forms of our different continents, seas, and islands; the different strata of clouds in our atmosphere, with their several changes and motions, and the earth's diurnal rotation, would in all probability be distinctly perceived. Even the varieties which characterize the surface of our moon would be visible with telescopes of a high magnifying power. The circumstances now mentioned prove the connections of the different parts of the planetary system with one another; and that the parts of it are so arranged that one world is, in a certain degree, subservient to the benefit of another. Thus the earth serves as a large and splendid moon to the lunar inhabitants; it serves in a certain degree, the purpose of a small moon to Mercury; it serves the purpose of a larger moon, by exhibiting a surface and a radiance four times greater, to the inhabitants of Venus; and it serves as a morning and an evening star to the planet Mars; so that while we experience enjoyment in contemplating the moon walking in brightness, and hail with pleasure the morning star as the harbinger of day, and feel a delight in surveying those nocturnal luminaries through our telescopes, the globe on which we dwell affords similar enjoyments to the intellectual beings in neighboring worlds, who behold

our habitation from afar as a bright speck upon their firmament, diffusing amid the shades of night a mild and placid radiance. From Venus the planets Jupiter and Saturn will appear nearly as they do to us; but the planet Mars will appear considerably smaller. The sun to this planet will appear twice as large as he does in our sky, and will appear to make a revolution round the celestial sphere in the course of seven and a half months, which completes the year of Venus.

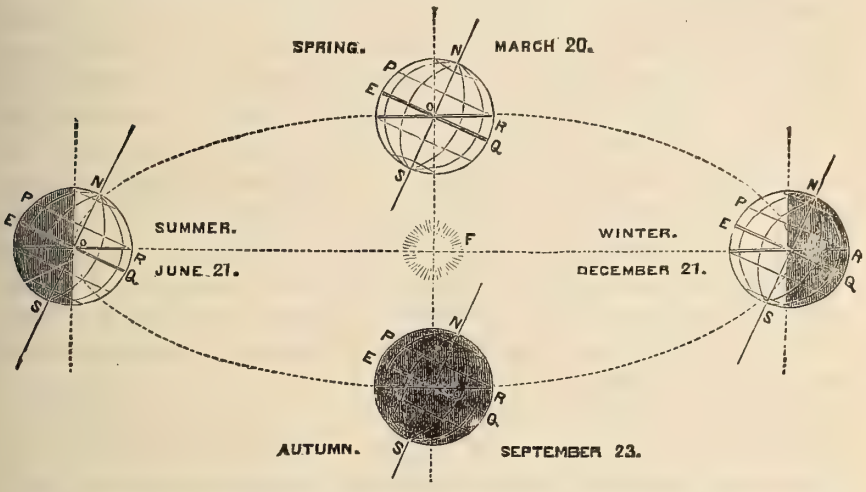
The Earth.

The next planet in order is the Earth, which we have hitherto considered as the base from which we made all our observations. It may still seem strange to some of our readers that this world on which we live should be considered a planetary orb; as at first view it does not appear to bear any resemblance to any of the luminaries that appear in our sky. The planets, as they are seen in the heavens by the naked eye, appear as only comparatively small points of light, whereas the earth, from whatever point we view it, appears the largest body our eyes anywhere behold and when we traverse its surface either by sea or land there appear no boundaries to its dimensions. We have explained before that the nearer a body is to the eye the larger it apppears, for the larger the angle is which its extremities subtend in the eye; and on the other hand the farther removed a body is, the smaller it appears, for the smaller the angle it subtends in our eye. This is the reason why the planets, some of which are much larger than the earth, appear but as visible points in our sky; and why the moon, though sixty millions of times smaller than the sun, appears equal in bulk to that luminary. From the positions in which we can view any portion of the earth, even when we ascend several miles above its surface in balloons, it does not exhibit a luminous aspect, such as that which the celestial bodies present; so that at first view we might be inclined to suppose that no similarity exists between our sublunary world and the orbs of heaven. Besides, the celestial orbs are apparently in rapid motion from one region to another, while the earth appears to be at rest in the centre of their motions. There is not, perhaps, one out of a thousand of the earth's present inhabitants who has the least conception that beside every other motion of which he is susceptible, he is carried along through the regions of space with the rapidity of thousands of miles every hour. Yet this is a fact which appears not merely probable but certain, and can be demonstrated to the conviction of every one who is both willing and qualified to enter into such investigations.

Could we stand on the surface of the moon we should behold the earth like a great globe in the firmament, appearing with a surface about 13 times larger than the moon does to us, and presenting its different sides to our view. Sometimes America, and the Pacific Ocean; and at other times, Asia, Africa, Europe, and the Atlantic Ocean; sometimes appearing like a large crescent, or half moon, and at other times with a full enlightened hemisphere. Could we take our station on the surface of Venus we should behold the globe on which we live appearing in the azure sky like a large bright star; and the moon, which appears so large in our firmament, would be seen only like a very small star very near the earth and constantly moving around it. The earth would in general appear about of the same size that Venus does to us, but perhaps not quite so brilliant, owing to three-fourths of its surface being covered with water; at certain times, however, it would appear ten times larger than Venus does to us and like a small brilliant moon. (On the other hand, if the bright side of Venus were turned toward us at the time of her inferior conjunction, that planet would appear about 25 times as large as it usually does.) Were our situation on the planet Mars, which is much farther from the sun than Venus, the earth would appear alternately as a morning and evening star, exhibiting different phases, as Venus does to us, but with a less degree of size and splendor. It might not, perhaps, shine with so much brilliancy as Venus, but it would probably appear of a lustre similar to that which Mars presents to us, or somewhat brighter. It need not be wondered at that the earth would appear as a luminous body from such distant positions; for we have demonstrative proof that Venus, Mars, and all the other planets, though they appear like shining orbs, are in reality dark bodies like the earth, and receive their light from the sun, the reflection of which from their surfaces makes them appear luminous to us; and it is only when the portions of their sides which are enlightened by the sun are turned toward us, that we see them in the heavens. On some occasions the dark side of Venus is completely turned toward the earth, and then she is invisible; and sometimes in this position is seen to pass, as a dark spot, across the disc of the sun. These and many other circumstances demonstrate that the planets are in themselves dark bodies, and shine only by reflection: and consequently that the earth, though a dark body, will appear luminous at a distance by reflecting the solar rays which fall upon it as the moon does to us. We have already proved that as a planet the earth turns round its axis every 24 hours, and also moves round the sun every year; this latter part of our position we will endeavor in the sequel to illustrate by a figure.

The earth's mean radius is 3,956½ English miles; its mean diameter being 7,913 miles; consequently its circumference, or a line extending quite round it, measures 24,859 miles; and the number of square miles on its surface is nearly 196,709,267. Of this it is estimated that 149,000,000 square miles are occupied by the seas and oceans; thus leaving 47,000,000 square miles of dry land, or less than one-third of that occupied by the water. The mean diameter of the earth's orbit is about 182,862,000 miles, and its approximate circumference about 574,709,000 miles. The linear eccentricity of the earth's orbit, being about one-sixtieth of its semi-axis major, or mean distance of the earth from the sun, we have 1,523,850 miles for the distance between the centre of the earth's orbit and the centre of the sun, or the focus of that orbit. Consequently the earth is about double this distance, or 3,047,700 miles nearer to the sun in winter than in summer. In the diagram the earth is represented in four different positions (momentary positions) in its orbit, namely, at mid-spring, mid-summer, mid-autumn, and mid-winter. In all these positions, as well as all round in its orbit, the parallelism of its axis N.S. is preserved, that is, its axis is always directed to the same points of the heavens. Some find it difficult to understand how the earth's axis in all parts of an elliptical orbit can remain parallel to itself. They should remember that the diameter of the earth's orbit is as nothing in comparison with the distance of the fixed stars. If two parallel lines are drawn at the distance of three or four yards from one another they will point directly to the moon, when she is in the horizon. Three or four yards are accounted as nothing in comparison of 240,000 miles, the distance of the moon from us. And perhaps three or four yards bear a greater proportion to 240,000 miles, than 182,862,000 miles, the diameter of the earth's orbit, bear to our distance from the pole-star. The earth's axis is inclined to the plane of its orbit at an angle of 66° 32′, hence it makes an angle of 23° 28′ with the perpendicular to the plane of its orbit; for the perpendicular, represented by the dotted line passing through the centre O, makes an angle of 90° with the plane of the orbit; and subtracting 66° 32′ from 90° leaves the remainder 23° 28′, which is the angle included between the axis, N. S., and the perpendicular or dotted line. The true cause of the variation of the seasons consists in the inclination of the axis of the earth to the plane of its orbit, or, in other words, to the ecliptic. If its axis were *perpendicular* to the ecliptic, the equator and the orbit would coincide; and as the sun is always in the plane of the ecliptic, it would in this case be always over the equator; the two poles would be always enlightened, and there would be no diversity in the length of days and nights, and but one season throughout

the year. Because of the parallelism of the earth's axis it so happens that at mid-spring, or March 20th, this axis is perpendicular to a line drawn to the centre of the sun, and the sun being now directly vertical to the equator there is equal day and night to all places on the earth, the poles being the boundaries of light and darkness; thus



there are twelve hours of light and twelve hours of darkness to every spot on the earth's surface for this day. Hence this day is called the equinox (equal night) of spring, or the vernal equinox. At this time the earth is in the sign Libra, and the sun appears in the opposite sign Aries. As the earth travels onwards from March to June the northern hemisphere comes more into light; and on the 21st of that month the sun is vertical to the tropic of Cancer. The earth is now in Capricornus and the sun appears in the opposite sign of Cancer. At this time the half of the globe is illuminated from the circumference of the north polar circle at the distance of 23° 28′ beyond the north pole N, to the circumference of the south polar circle, at the same distance from the south pole S. At this time there is no day within the south polar circle, but the night continues twenty-four hours; and there is no night within the north polar circle. the day continuing for the same length. As at this point the earth begins to return to a position similar to that of the vernal equinox, and the sun seems to be stationary for two or three days before and after this day, it is called the summer solstice (sun standing), or the tropic (turning) of summer. As the earth now travels on from June to September the sun shines less and less over the north pole, until on the 23rd of that month we find him again vertical to the equator. The days and nights are now again exactly equal all over the earth, or there are twelve hours of light, and twelve hours of darkness to

every spot on the earth's surface for this day. At this time, as at March 20th, the earth's axis is perpendicular to a line drawn to the sun's centre. It is now called the equinox of autumn, or autumnal equinox; the earth is in the sign Aries, the sun appearing in the opposite sign Libra. Since it is summer to every part of the earth where the sun is vertical (and we find it vertical to the equator twice in the year), we see the reason why those living near the equator have two harvests every year. Following the earth in its journey to December we find that when it has arrived in the sign Cancer, at the 21st of that month, the sun appears in the opposite sign of Capricorn, and is now vertical to that part of the earth called the tropic of Capricorn. The half of the globe is now illuminated from the circumference of the south polar circle at a distance of 23° 28′ beyond the south pole, S, to the circumference of the north polar circle, at the same distance from the north pole, N. At this time there is no day within the north polar circle, the night continuing twenty-four hours; and there is no night within the south polar circle, the day continuing twenty-four hours.

In looking at the diagram, you see at the vernal equinox, or March 20th, the whole of the illuminated hemisphere of the globe, because from the representation of its position it is turned in front both to the sun at F, and to you the spectator. At the summer solstice, or June 21st, you see only half the illuminated hemisphere of the globe, because it is turned in front to the sun at F, but sideways to you the spectator, you being supposed outside of the orbit. At the autumnal equinox, or September 23d, you see none of the illuminated hemisphere of the globe, because it is turned in front to the sun at F, but its back is to you the spectator, you being outside of the orbit, and as it were behind the globe. And at the winter solstice, or December 21st, you again see half of the illuminated hemisphere of the globe, because it is turned in front to the sun at F, but only sideways to you the spectator, for the same reason as before. But were you placed in the middle of the orbit, at the point F, you would, by turning round and round to the different positions we have been describing, see the whole of the illuminated hemisphere of the globe at each point of its course. In the course of this revolution the inhabitants of every clime experience, though at different times, a variety of seasons. Spring, summer, autumn, and winter follow each other in constant succession, diversifying the scenery of nature, and marking the different seasons of the year. In those countries which lie in the southern hemisphere of the globe, November, December and January are the summer months: while in the northern hemisphere, where we reside, these are our months of winter. In the northern

and southern hemispheres the seasons are opposite to each other, so that when it is spring in the one it is autumn in the other; when it is winter in the one it is summer in the other. During six months, from March 20th to September 23d, the sun shines without intermission on the north pole; so that there is no night there during all that interval, while the south pole is all this time enveloped in darkness. During six months, from September 23d to March 20th, the sun shines without intermission on the south pole, so that there is no night there during all that interval, while the north pole is, in its turn, deprived of the sun, and left in darkness. From $66\frac{1}{2}°$ north or south latitude the inhabitants of these two opposite climes enjoy a length of day during their respective summers varying from 24 hours to six months. The nearer the pole the longer is the day. Our summer is nearly eight days longer than our winter. By summer with us is meant the time which passes between March 20th and September 23d, or between the vernal and autumnal equinoxes; and by winter the time between September 23d and March 21st, or between the autumnal and vernal equinoxes. That portion of the earth's orbit that lies north of the equinoctial contains 184°, while that portion which is south of the equinoctial contains 176°; being 8° less than the other portion; which is the reason why the sun is nearly eight days longer on the north of the equator than on the south of it. In our summer the earth's motion is through the six southern signs, Libra, Scorpio, Sagittarius, Capricornus, Aquarius, Pisces, while the sun appears in the opposite or northern signs; and in the winter the earth moves through the six northern signs Aries, Taurus, Gemini, Cancer, Leo, Virgo, while the sun appears in the opposite or southern signs. In the former case, from March 21st to September 23d, the sun is about 186 days, 11 hours, in passing through the northern signs; and in the latter case only 178 days 18 hours, in passing through the southern signs, the difference being about 7 days, 17 hours. The reason of this difference is that the earth moves in an elliptical orbit, one portion of which is nearer the sun than another; in consequence of which the earth's motion is faster while moving through the northern signs in winter,—it being over three millions of miles nearer to the sun then than in summer; and the nearer the sun the planet approaches the quicker it moves; —and slower while passing through the southern signs in summer; which makes the sun appear to move slower through the northern signs. That the earth is nearer the sun in winter than in summer, is ascertained from the variation of the apparent diameter of the sun. About the first of January, when he is nearest the earth, the apparent diameter is $32'$, $35''$; and on the first of July, when he is most

distant, it is only 32′ 31″. This proves that the earth is farther distant from the sun in one part of its orbit than in another. In January the earth's motion every hour is at the rate of 69,600 miles; but in July its rate of motion per hour is only about 66,400 miles; a difference of more than 3,000 miles an hour.

The earth completes its revolution in its orbit in 365 days, 5 hours, 48 minutes, and 49 seconds. This period is called a *solar*, or *tropical* year, and is reckoned from the time of the sun's passing the equinoctial point till it again reaches the same spot. The *siderial* year is reckoned from the time of the sun's passing any fixed star till its return to it again, and is 20′ 21″ longer than the solar; the reason of the difference being the retrograde motion of the equinoctial point (called the precession of the equinoxes, which is fifty seconds of a degree every year), by which it travels as it were to meet the sun, so that he comes to it before he has quite completed his circuit. These two periods may be stated thus: solar year 365 days, 5 hours, 48 minutes, 49 seconds; siderial year 365 days, 6 hours, 9 minutes, 10 seconds. In early times the year was taken to consist of 365 days. As, however, the solar year is nearly 365¼ days, the day of the equinox soon became wrong; to remedy which Julius Cæsar introduced an additional day into February of every fourth year, thus making that year contain 366. This arrangement was known as the Julian style, and continued in use until nearly the end of the sixteenth century; but as the year is a few minutes shorter than 365¼ days, the equinoxes had by this time fallen back as much as 10 days. Pope Gregory XIII. corrected this error by ordering ten days to be left out of the year 1582; and then he modified the Julian style by the following rule: Every year divisible by 4 was to contain 366 days; the even hundreds, however, unless divisible by 400, were to be considered as ordinary years of 365 days; thus 1800 and 1900 are ordinary years, while 2000 will be a leap-year. By this means the error is very nearly eliminated. This alteration, which is known as the Gregorian Calendar, was not adopted in England till 1752, and eleven days had then to be struck out of that year, to correct the error, which had increased one day in 170 years.

In addition to this movement round the sun, by which the seasons are produced, the earth, as we have seen, has a rotation on its own axis, whereby are brought about the changes of day and night. The interval in which this diurnal rotation is completed, as ascertained by the passage of any star across the meridian on two successive days, is called a *siderial day*. It is, in fact, the time occupied by the heavens in making one apparent revolution. In this we have an *invariable measure;* it is, therefore, frequently adopted in the observ-

atories; but for practical purposes of everyday life it would not answer well, as it is 3 minutes, 55″.91 seconds shorter than that determined by the sun; and thus clocks regulated by it would gain that amount on the sun every day. The day, therefore, in ordinary use is that reckoned by the movements of the sun, and is known as the *solar day*, being the interval which elapses between two successive meridian passages of the sun. As, however, the distance of the earth from the sun varies in different parts of its orbit, and its diurnal rate of motion varies in like manner, this period is not uniform; its mean length is, therefore, ascertained and taken as the natural or mean solar day. Our clocks are all regulated so as to indicate mean solar time, and hence they are sometimes faster than the sun, and sometimes slower. The greatest discrepancies are about February 10th, when the clock is fifteen minutes faster than true solar time, as indicated by a sun-dial; and October 27th, when it is sixteen minutes slower.

As the sun is further from us in summer than in winter, some naturally enquire why we experience the greatest heat in the former season. The following among other reasons may be assigned, which will partly account for this effect 1. The sun rises to a much greater altitude above our horizon in summer than in winter, and consequently its rays falling more directly upon the earth the thicker and denser will they be, and so much the hotter, when no counteracting causes from local circumstances exist. 2. The greater length of the day in summer contributes to augment the heat; for the earth and atmosphere are heated by the sun in the daytime more than they are cooled in the night; and, on this account, the heat will go on increasing in the summer; and for the same reason will decrease in winter, when the nights are longer than the days. The main cause is that in summer, when the sun rises to a great altitude, his rays pass through a much smaller portion of the atmosphere, and are less weakened by it than when they come to the earth in an oblique direction, weakened by their passage through the dense vapors near the horizon, and by many refractions and reflections of the atmosphere.

The cause of the changes of the seasons can be exhibited with more clearness and precision by means of machinery than by verbal explanation; and, therefore, those whose conceptions are not clear and well-defined on this subject should have recourse to planetariums, which exhibit the celestial motions by wheel-work. There has been some time ago a small instrument called a Tellurion, manufactured by Messrs. Jones, Holborn, London, which conveys a pretty clear idea of the motions and phases of the moon, the inclination of

the earth's axis to the plane of its orbit, and the changes of the seasons. This instrument was sold at moderate prices according to the quantity of wheel-work, and doubtless it is yet obtainable.

The subject of the seasons and the variety of the phenomena they exhibit, have frequently been the theme of the poet and the philosopher, who have expatiated on the beauty of the arrangement, and the benignant effects they produce; and therefore they conclude that other planets experience the same vicissitudes and seasons similar to ours. This, however, by no means follows, for the cause of the changes of the seasons, as we have them, is owing to the degree of inclination which the earth's axis has to the plane of its orbit, and every planet discovered in our system has a different degree of inclination in that respect, and, therefore, the seasons of each will be different from ours, though they may be analogous. But though in the present constitution of our globe there are many benign agencies and effects, which accompany the revolutions of the seasons, and contribute to the wants and happiness of the earth's inhabitants, yet how few there are out of the great mass of mankind who properly appreciate them, and render to their Creator due praise for circumstances so good, and gifts so rare! Were the habitable parts of the earth generally well cultivated, its marshes drained, and its desolate parts reduced to order and vegetable beauty by the hand of art, and replenished with an industrious and enlightened population, there can be little doubt our seasons would be considerably meliorated, and many physical evils prevented with which we are now annoyed. And all this man has it in his power to accomplish provided he chooses to direct his wealth, and his physical, intellectual, and moral energies into this channel. We are highly favored, but we may to a considerable extent improve our circumstances; and God always assists every effort that is made in the right direction.

The Moon.

The earth, in its journey round the sun, is attended by a secondary planet, or satellite, the moon. This globe may almost be considered as a part of the earth, for in its revolution round the sun it is not the earth's centre that travels along the orbit, but the centre of gravity of the earth and moon taken together. As the moon is our nearest neighbor in space, and exerts a greater influence on the earth than any of the other heavenly bodies, with the exception of the sun, it has at all times attracted a large share of attention. Its great apparent size and the phases it presents increase the interest. To the eye the moon appears very nearly as large as the sun. This, however, results entirely from its great proximity to us; it is in reality the smallest of the heavenly bodies which can be discerned by

the naked eye. Although its apparent size is nearly equal to that of the sun, yet it would require more than sixty-three millions of globes of the size of the moon to form a globe equal in magnitude to the sun. The moon's distance from us is easily learned from its horizontal parallax, which is sufficiently great to be accurately measured. This varies in different parts of its orbit, but its mean value is about 57′, and thus the moon's distance is found to be 238,833 miles. We may here observe that the parallax of the moon, or of any heavenly body, is the difference in the apparent position of that body as viewed from two different stations on the earth's surface, which are the length of the earth's semi-diameter, about 4000 miles apart.*

* In order that the general reader may understand what is meant by the diameter or semi-diameter of the earth forming the *base line* of those triangles by which the distances, etc., of the heavenly bodies are measured, we think it necessary to give the following explanation:

In any triangle, as A B C, if the length of the side A B be known, and likewise the quantity of the angles at A and B, or the number of degrees and minutes they subtend, be ascertained, we can find the length of the sides A C and B C. If A B represent a horizontal plane 100 feet in extent, and C B a tower whose height we wish to determine, and if with a quadrant we find the angle at A to C A B to be 44°, then by an easy process in trigonometry: Radius: is to the tangent of A, or 44°: : as the side A B 100 feet: is to the height of the tower C B ; which will give the answer, in this case 96½ feet.

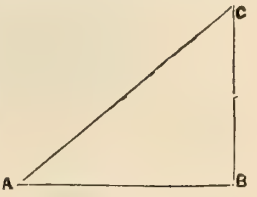


Fig. 108.

It is on this general principle that the distances and magnitudes of the celestial bodies are determined. But in all cases where we wish to ascertain the dimensions of the different parts of a triangle, the dimensions of at least one side must be given along with two angles ; otherwise the length of the different sides of the triangle cannot be determined. Now, in measuring the distance of a heavenly body, such as the moon, the diameter or semi-diameter of the earth is the known side of the triangle by which such a distance is to be determined. In the annexed figure let E C, represent the earth; M the moon; and A B a portion of the starry sky. If a spectator at the earth's surface at E, view the moon in the horizon, he will see it in the line M, among the stars at H. But if he view it from the centre of the earth at C, or from the surface at D, which will be the same in effect, he will see it in the line C D M, among the stars at S. The difference of position in which the moon is seen as viewed from the surface of the earth E, and the centre C, is called the moon's horizontal parallax, or the arc S H, which is subtended by the angle S M H, which is equal to the angle E M C. In determining the distance of the moon, therefore, we must first find by observation the horizontal parallax, or in other words the angle E M C: and the side E C, or the semi-diameter of the earth, being known to be about 4000 miles in extent, serves as the base line of the triangle E M C ; and hence the other sides of the triangle E M, and C M, or the distance of the moon from the earth, can be found by an easy calculation.

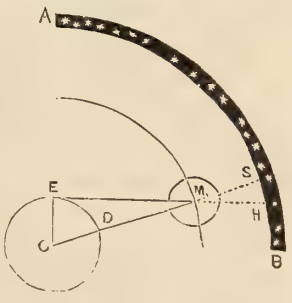


Fig. 109.

From what has been now stated it will appear that it is of great importance that we have correctly ascertained the figure and magnitude of the earth ; for if the length of the base line which we take in our trigonometrical calculations of the moon, or any other celestial body, be incorrectly stated, the whole calculation must be necessarily wrong, and the results false. In the foregoing explanation we have merely given the principle on which astronomers proceed in measuring the distances of the heavenly bodies, without entering into details.

This will be understood by reference to the subjoined figure and explanation at the bottom of the page. Knowing the moon's distance, and also the angle which its disc subtends to an observer, we easily ascertain its mean diameter to be 2,153 miles; its circumference 6,764 miles; and consequently its area 14,562,892 square miles. This body revolves in its orbit round the earth, and completes its circuit, reckoning from the time of its passing any star till its return to the same star, in 27 days, 7 hours, and 43 minutes, 11·5 seconds, which period is known as a *siderial* revolution. The more usual plan, however, of reckoning its period is by reckoning from the time of one full moon to the next. This period is the greater, the reason of the difference being that the moon is full when it is in the part of the heavens diametrically opposite to the sun. Now, if the earth were stationary, this would always happen in the same part of the sky; but as the earth is moving in its orbit round the sun, carrying the moon with it,—by the time, therefore, that the moon has completed its circuit, the earth has travelled round nearly one-thirteenth of its orbit, and the moon must overtake the earth by travelling so much further, before it again comes opposite to the sun. This may be illustrated by the revolutions of the hour and minute hands of a watch or clock. Suppose the hour-hand to represent the sun, and a complete revolution of it to represent a year; suppose the minute-hand to represent the moon, and its circuit round the dial plate a month, it is evident that the moon or minute-hand must go more than round the circle where it was last conjoined with the sun or hour-hand, before it can again overtake him. If, for example, they are in conjunction at 12 o'clock, the minute-hand or moon must make a complete revolution, and above one-twelfth, before they can meet again at a little past 1; for the hour-hand, being in motion, can never be overtaken by the minute-hand at that point from which they started at their last conjunction. This surplus of motion occupies the moon 2 days, 5 hours, 0 minutes, $5\frac{1}{2}$ seconds, which, added to the siderial, makes the *synodical* revolution, or the period between one new or full moon and another. The average length of this period is 29 days, 12 hours, 44 minutes, and 3 seconds. This interval is, therefore, termed a *lunar* month, and during it the moon passes in succession through all its phases. The sun always enlightens one-half of the moon, and sometimes the whole of this enlightened side is turned toward the earth, when she appears a round luminous orb; but this happens only at one point of her orbit, namely, at full moon. At all other parts of her course only a portion of her enlightened side is turned toward the earth; and in one particular part of her orbit, just before new moon, her enlightened side is altogether invisible.

At this part of her course she is invisible, both because she is in the same part of the heavens as the sun, and because the whole of her dark hemisphere is then turned toward the earth. After this it is generally two days or more before any of her enlightened surface is visible. About the third day after the *change*, that is, new moon, she is seen in the western sky at no great distance from the point at which the sun set, and then appears in the form of a slender crescent, having the horns pointed towards the east. The figure annexed will render this more clear. Here the sun must be considered as situated con-

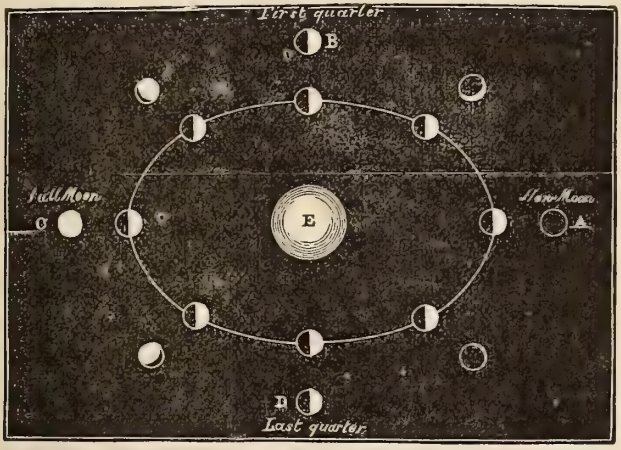


Fig. 110.

siderably to the right of the figure; consequently the illuminated part of the moon will always face that way. E represents the earth, and the moon is represented in eight different points of its orbit, the outer row of discs showing the appearance the moon presents to us when in each of these positions. When at A, her enlightened hemisphere being wholly turned toward the sun, the dark hemisphere is wholly turned toward the earth, and the moon is consequently wholly invisible. As it travels onwards in its orbit towards B, a small portion of its illuminated hemisphere comes into view, presenting the appearance of a slender crescent, having its horns pointed eastward, the sun being now to the west of her. At this time the greatest part of the moon may sometimes be faintly discerned by the naked eye. This is caused by the light which is reflected from the earth on the moon, or *Earth-shine*, as it is termed. A little consideration of the relative positions of the three bodies will show that at the time when the moon is *new* to us, the earth must appear *full* to the inhabitants of the moon; and it appears of a size thirteen times as large as the full moon does to us; for the hemisphere of our globe is thirteen times larger than that of the moon, and thus at this period the most powerful light will be reflected from the earth upon the moon. When

the moon has arrived at B, she presents exactly one-half her illuminated hemisphere to the earth, and this is called her *first quarter*. Still continuing her course, she at length arrives at C, where the sun and the earth are on the same side of her, and accordingly the illuminated hemisphere is turned towards the earth, presenting the entire disc of the full moon. When now, the moon being at C, it is full moon to us, the dark side of the earth is wholly turned toward the moon, and the earth is consequently invisible to the inhabitants of the moon. When the moon is in the increase to us, the earth is decreasing in its illuminated surface to the moon; and conversely, when the moon is in its decrease to us, the earth is in its increase to the lunar inhabitants; so that the phases of the earth, as seen from the moon, are exactly opposite to the phases of the moon as seen from the earth. After passing C, the moon goes through the same series of changes, but in a reverse order; thus she presents, as first shown, a gibbous phase; at D, half her enlightened hemisphere is turned toward us, and it is called her *last quarter;* she then presents a slender crescent, having its horns pointed toward the west, the sun being now rather to the eastward of her; and she finally arrives at A, to go through the same series of changes again.

There is one remarkable circumstance in connection with the moon, which we shall see by and by is not peculiar to her alone among the secondary planets; and that is, that the moon always presents the same side to the earth, so that we never see her opposite hemisphere. This proves that she turns round her circumference just once during her complete revolution round the earth. A great deal of fruitless controversy has frequently arisen upon the question as to whether the moon has an actual rotation or not. The fact that she always presents the one side to the earth is admitted by all. The only question is as to whether or not this motion can be called a rotation. A very little consideration will, however, make it clear that the moon does rotate;* for if the moon had no rotatory motion round her axis, we should see both her hemispheres in the course of every revolution she makes round the earth. This, we are aware, does not at first view appear obvious to those who have never directed their attention to the subject. Any one, however, may convince himself of this fact by standing in the centre of a circle, and causing another person to carry round a terrestrial globe without turning it on its

* Still it is regarded as a very strange circumstance that the moon's axis is invariably turned towards the earth and that the figures on its face always maintain the same position towards the observer on the earth; although if there were a real rotation it is thought the position of these figures should be inverted in the period between new and full moon or during half the rotation. It will be observed that although the common or Newtonian Theory of Astronomy accounts well for the phenomena, it is open to many objections.

axis, when he will see every part of the surface of the globe in succession; and in order that one hemisphere only should be presented to his view, he will find that the globe will require to be gradually turned round its axis, so as to make a *complete* rotation in the time it is carried round the circle. The earth may in this case be considered a fixed station for observation, inasmuch as it turns round its circumference twenty-nine times during one rotation of the moon; and, therefore, the moon (its one hemisphere) is constantly seen by the inhabitants of the earth. Owing to the fact that the moon's axis is inclined 1° 31′ to the plane of its orbit (the orbit itself being inclined to the ecliptic 5° 9′), we occasionally see a little beyond its north pole, and then a similar distance beyond its south pole. Also we sometimes observe the spots on her eastern margin which were formerly visible on the western margin again withdraw themselves behind the limb, while the spots which became concealed behind the eastern margin again appear. These phenomena of the change of spots on the east and west limbs of the moon, as well as toward the north and south poles, sometimes occur for the space of about 3′ on the moon's disc, or about the eleventh part of her diameter. This is termed the *libration of the moon;* the one, north and south, her libration in latitude; the other, her libration in longitude.

The moon's orbit is, as we have stated, inclined to the ecliptic at an angle of 5° 9′; so that in one part of her course that luminary is above, and in another below the level of the earth's orbit. It is owing to this circumstance that our satellite is not eclipsed at every full moon, and the sun at every new moon, which would regularly occur did the moon move in an orbit exactly coincident with the plane of the ecliptic. The moon's orbit, of course, crosses the orbit of the earth in two opposite points called her nodes; and it is only when the new or full moon happens at or near these nodes that an eclipse of the sun or moon can take place; for it is only when she is in such a position that the sun, the moon, and the earth, are nearly in a straight line, and that the shadow of the one can fall upon the other. The shadow of the moon falling upon any part of the earth causes an eclipse of the sun; and the shadow of the earth falling upon the moon causes an eclipse of the moon. An eclipse of the moon can only take place at *full moon*, when the earth is between the sun and the moon; and an eclipse of the sun can only occur at *new moon*, when the moon comes between the sun and the earth. Lunar eclipses are visible at all places of the earth which have the moon above their horizon, and are everywhere of the same magnitude and duration; but a solar eclipse is never seen throughout the whole

hemisphere of the earth where the sun is visible; as the moon s disc is too small to hide the whole or any part of the sun from the whole disc or hemisphere of the earth. Nor does an eclipse of the sun appear the same in all parts of the earth where it is visible, but when at one place it is total at another it is only partial.

The moon's orbit, like those of the planets, is an ellipse whose eccentricity is 12,960 miles, or the 1–37th part of its major axis. The moon is therefore at different distances from the earth in different parts of her orbit. When at her greatest distance from the earth she is said to be in her *apogee;* when at her least distance in her *perigee.* The nearer the moon is to the periods of full or change, the greater is her velocity; and the nearer to the quadratures or the periods of half-moon, the slower she moves. When the earth is in her *perihelion*, or nearest the sun, the moon's periodical time is the greatest. The earth is at its perihelion in winter, and consequently at this time the moon will describe the largest circles about the earth, and her periodical time will be the longest; but when the earth is in its aphelion, or farthest from the sun, which happens in summer, she will describe a smaller circle, and her periodical time will be the least; all which circumstances are found to agree with observation. These and many other circumstances which our space does not allow us to particularize, arise from the attractive influence of the sun upon the moon in different circumstances and in different parts of its course, so as to produce different degrees of accelerated and retarded motion.

The peculiarities of the moon's motions have much and frequently puzzled astronomers and mathematicians, and they render the calculation of her true place in the heavens a considerably difficult task. No less than thirty equations require to be applied to the mean longitude in order to obtain the true, and about twenty-four equations for the obtainment of her latitude and parallax. These problems have, however, been solved, and the moon's motions are now fully understood.

The moon's principal motion is, as has been explained, one of revolution round the earth; but the earth is at the same time pursuing her journey round the sun; and thus the combination of these two motions causes it to describe a path, which is in reality a succession of curves. If a pencil were attached to one of the spokes of a wheel, and made to trace a line on a piece of paper, as the wheel travelled onwards we should obtain a rough but somewhat true representation of this path. In her motion round the earth every month the moon pursues her course at the rate of 2,300 miles an hour, but she moves at the same time with the earth in her course

round the sun, so that her real motion in space is much more rapid than what has now been stated—perhaps not less than 70,000 miles an hour—for while she accompanies the earth in her annual motion, which is at an average rate of 68,000 miles an hour, she also moves thirteen times round the earth in the same period, which is equal to a course of nearly twenty millions of miles



Fig. 111.

By means of a good telescope a considerably distinct view may be obtained of the moon. A power of 1,000 brings us, as it were, within 239 miles of its surface, and on very favorable occasions a power even higher than this has been applied; but though a power of 2000 times could be used with distinctness it would make the moon appear no nearer to us than 120 miles, at which distance a living being, though a hundred feet high, could not be seen; for with such a power a space on the moon's surface of 183 feet in diameter could only be perceived as the smallest visible point. This perhaps is the reason why no trace of lunar inhabitants has as yet been discovered. Beside, we ought to consider that when we view objects on the moon's surface, we do not view them in perspective, as we do objects on the surface of the earth, but only obtain a bird's-eye view of them, as we do of objects on the earth's surface, which we view from a balloon elevated in the atmosphere; in which case, when we look down upon groups of human beings we see only the tops of their heads and their shoulders.

Dr. Olbers, a celebrated German astronomer, was fully of opinion from observations he had made "that the moon is inhabited by rational creatures, and that its surface is more or less covered with a vegetation not very dissimilar to that of our earth." Even to the naked eye the moon presents the appearance of an uneven and rugged surface; and telescopic observations confirm this impression. On many parts of its surface high mountains are seen to exist, and

the altitudes of many of these have been approximately measured by observing the shadows cast by them when the sun shines obliquely. One peak, named Newton, is found to have an elevation of nearly 24,000 feet, and several others are very lofty. The elevated summits of these lunar mountains catch and reflect the rays of the sun long before the plains around them, and shine out brilliantly against the dark ground. The most remarkable characteristic feature, however, of the lunar surface, is the number of ring craters which exist on its surface. These resemble huge volcanic craters. In some a spacious plain somewhat circular in shape is surrounded by a lofty

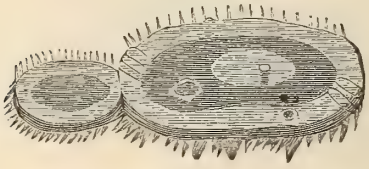


Fig. 112.

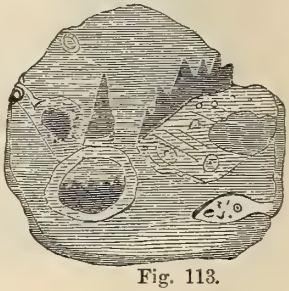


Fig. 113.

and rugged mountain-ridge, which almost or quite encloses it. Not unfrequently a solitary peak stands erect in the middle of this enclosed plain, attaining nearly the same height as the surrounding mountain-ridge; in other cases the interior is so extensive that mountain chains run across it. The number of these cavities, especially in the southern hemisphere of the moon, is very great; and some of them are of such a size as to be aptly designated "walled-plains." Even with the most powerful telescope the more minute features of these mountain ranges are unable to be distinguished thus far; the appearance of many of them, however, seems to indicate most strongly the violent action of volcanic forces; and shows that in past time great convulsions of nature have taken place there.

Fig. 111 is a telescopic view of the moon. Fig. 112 is a view of the brilliant spot called Aristarchus, which is situated in the northeast quadrant of the moon's surface, where the shadows of some of the circular cavities, and also the shadows of the mountains may be perceived. Fig. 113 is the spot called Hevelius, which contains an annular cavity and a broken elevation, somewhat resembling an egg. Fig. 114 represents a cavity surrounded by a circular range of mountains, with two central mountains in the middle of the plain, in which the shadows of one side of the circular range and of the central mountains may be seen. Fig. 115 shows another magnified portion of the moon's disc, exhibiting several circular plains, cavities, and other varieties of the lunar surface.

The telescope also brings to view many level plains on the moon's surface, which were formerly thought to be lunar seas, and which still retain the names that were then given to them, though it now appears evident that they are merely dry plains. The Ocean of Storms, the Sea of Clouds, and the Bay of Rainbows are some of these spots. Some astronomers now express the opinion that no water exists on the side of the moon that is turned towards the



Fig. 114.

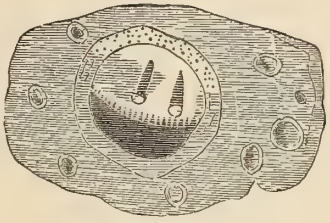


Fig. 115.

earth, however it may be as to its existence on the other hemisphere. Some indeed have supposed that its centre of gravity is nearer to the other side, and that hence all the air and water are accumulated there; but this is merely conjecture.

The best time for making observations on the moon is at the time of the quadratures, as at the time of full moon the shadows of the mountains and peaks, which are hitherto conspicuous, disappear, the sun shining upon them vertically. Accurate maps have ere now been drawn of the moon's surface on a large scale, and the principal mountains have received names, usually names of celebrated astronomers.

The following additional particulars respecting the moon may be stated. 1. The length of a lunar day is equal to nearly fifteen of our days, and the length of the night the same, so that a day and night in the moon equal twenty-nine and a half of our days and nights, or one lunar month. On the hemisphere facing the earth there is moonlight, *earthshine*, nearly all the time the sun is absent; but in the other hemisphere in the absence of the sun there is no light but what proceeds from the stars and planets. Were a lunarian to keep travelling at the rate of ten miles an hour, in a direction at right angles to the moon's axis, he might keep pace with the moon's rotation, and be enabled to live in perpetual sunshine. 2. The light of the moon has been computed to be 300,000 times less intense than that of the sun when shining in an unclouded sky; yet its utility is considerable; and when the full moon shines in its splendor it sheds a cheerful though mild radiance over the surrounding landscape.

3. The moon is, according to the opinion of most astronomers, surrounded by an atmosphere, but it is a very limited one, and of great tenuity, and no clouds or vapors appear to exist in it. It is stated as having been distinctly perceived during the annular eclipse of 1836, when just before the edges of the two bodies met, the light of the sun was seen to shoot through the moon's atmosphere, mollified into twilight. Schroter calculated its height at 5742 feet. They also gave it as their opinion that the moon is replenished with inhabitants; for although seas, and rivers, and a dense atmosphere are not found connected with the lunar orb, and some other of its peculiarities are different from those of the earth, yet these circumstances form no valid objection to its being inhabited with a race of sentient and intelligent beings peculiar to itself, and adapted to their habitation. If telescopes of sufficient powers were in use to disclose to us the particulars as to the surface of the moon, there would, doubtless, be found water existing there, and a race of beings perhaps not very dissimilar to mankind, whose thoughts may sometimes be directed to the glorious orb of the earth in the way of adoration.

Appearance of the Heavens as viewed from the Moon.

Although the moon is the nearest body to the earth, and its constant companion, yet its celestial scenery is in a variety of aspects different from ours. The earth appears the most splendid orb in its nocturnal sky, and its various phases and relative positions form, doubtless, an interesting subject of enquiry and contemplation to its inhabitants. It appears in the lunar sky thirteen times larger than the moon does to us, and sheds nearly a corresponding portion of light on the mountains and vales of the lunar surface. As the moon always presents nearly the same side to our view, so the earth is visible from only one-half of the lunar surface. The inhabitants of the opposite side of the moon, which is never turned toward the earth, will never see the earth in the sky unless they perform a journey to the opposite hemisphere; and those who dwell near the central parts of that hemisphere, which is turned from our globe, will require to travel more than 1500 miles before they can behold the large globe of the earth in the sky. To all those to whom the earth is visible it appears fixed and immovable in the same relative point of the sky; or, at least, does not appear to have any circular motion round the heavens. To a spectator situated in the middle of the moon's hemisphere visible from the earth, the earth appears directly in the zenith, or overhead, and always appears fixed very nearly in the same position. To a spectator placed in the extreme parts of that hemisphere,

or what seem to us to be the margins of the moon, the earth appears always nearly in the horizon; and to spectators in intermediate positions the earth appears at a higher or lower elevation above the horizon, according to their distance from the extreme or central parts of that hemisphere. But though the earth appears fixed nearly in the same part of the sky the slight variation of the moon, called the libration, causes the earth now and then to appear to shift its position a little by a kind of vibratory motion, so that those at the margins of the hemisphere who see the earth in the horizon sometimes see it dip a little below, and at other times rise a little above their horizon. This vibratory motion they are probably disposed at first view to attribute to the earth, which they will naturally consider as a body nearly at rest, but subject to a slight vibratory motion; whereas this apparent vibration proceeds from the actual vibration of the moon itself.

Although the earth seems fixed in nearly the same position, its rotation round its axis is distinctly perceptible, and presents a variety of different appearances. Europe, Asia, Africa, and America present themselves one after another in different shapes nearly as they are represented on our terrestrial globes; and our polar regions, which we have never yet been able to explore, are distinctly seen by the lunarians, who will be enabled to determine whether they chiefly consist of land or water. When the Pacific ocean, which occupies nearly half the globe, is presented to view, the great body of the earth assumes a dusky or sombre aspect, except toward the north, north-east, and north-west; and the islands dispersed through this ocean will exhibit the appearance of small lucid spots on a darkish ground. But when the eastern continent turns round to view, especially its northern regions, the earth appears to shine with a greater degree of lustre. These appearances are diversified by the numerous strata of clouds, which are continually wafted by the winds over the different regions of the earth; and must occasionally intercept their view of certain parts of the continents and seas, or render their appearance more obscure at one time than at another.

The apparent diurnal motions of the sun, the planets, and the stars appear much slower and somewhat different in several respects from what they do to us. When the sun rises in their eastern horizon, his progress is so slow that it requires more than seven of our days to come to the meridian, and the same time before he has descended to the western horizon; for the days and nights on the moon, as before remarked, are nearly fifteen days each, and they are nearly of an equal length on all parts of its surface, as its axis is nearly perpendicular to the ecliptic, and consequently the sun never removes to

any great distance from the equator. During the day the earth appears like a faint cloudy orb, always in the same position; and during the night the stars and planets are visible without interruption for fifteen days, and are seen moving gradually during that time from the east to the western horizon. Though the earth will always be seen in the same point of the sky both by day and night, yet it will appear to be constantly shifting its position with respect to the planets and the stars, which will appear to be regularly moving from the east to the west of it; and some of them will occasionally be hidden or suffer an occultation for three or four hours behind its body. The sun, planets and fixed stars will appear of the same apparent magnitude as they do from the earth; but as the poles of the moon are directed to points of the heavens different from those to which the poles of the earth are directed, the pole-stars in the lunar firmanent, and the stars which mark its equator and parallels, are all different from ours; so that the stars in their apparent diurnal revolutions will appear to describe circles different from those which they appear to describe in our sky. The inferior planets, Mercury, and Venus, will generally be seen in the vicinity of the sun as they are seen from the earth; but they will be more distinctly perceived, and are visible for a much longer time, after sunset, than they are from our globe. This is owing, first, to the transparency of the lunar atmosphere, and to the absence of dense vapor near the horizon, which in our case prevent any distinct observations of the heavenly bodies, when at a low altitude; and, secondly, to the slow apparent diurnal revolution of Mercury and Venus. The superior planets, which we are about to consider, will, as with us, be seen in different parts of the heavens, and occasionally in opposition to the sun; but they appear to be continually shifting their positions in relation to the earth, and in the course of fifteen days are seen in the very opposite quarter of the heavens, and in other fifteen days are again seen in conjunction with the earth; and nearly the same appearances are observed in reference to the inferior planets, but the periodic times of their conjunctions with the earth, and their oppositions to it, are somewhat different, owing to the difference of their velocities in their annual revolutions.

The eclipses of the sun which happen to the lunar people are more striking, and total darkness is of much longer continuance than with us. When a total eclipse of the moon happens to us there is a total eclipse of the sun to the lunarians. At that time the dark side of the earth is completely turned toward the moon, and the sun is seen to pass gradually behind the earth until it entirely disappears. The time of the continuance of total darkness in central eclipses is nearly

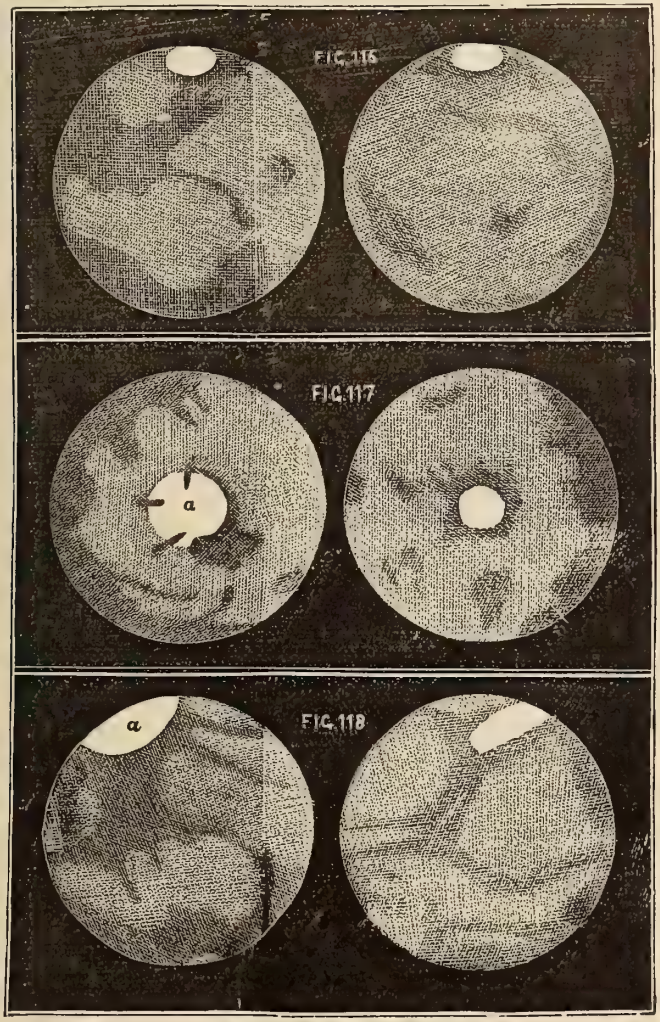
two hours; and, of course, a total eclipse of the sun must be a far more striking and impressive phenomenon to the inhabitants of the moon than to us. A complete darkness ensues immediately after the body of the sun is hidden, and the stars and planets appear as at midnight. When a partial eclipse of the moon happens to us, all that portion of the moon's surface, over which the earth's shadow passes, suffers a total eclipse of the sun during the time of its continuance. On the other parts of the moon's surface there is a partial eclipse of the sun: and to those who are beyond the range of the earth's shadow no eclipse appears. When an eclipse of the sun happens to us the lunarians see a dark spot, with a penumbra or fainter shades around it, moving across the disc of the earth, which then appears a full enlightened hemisphere, excepting the part that is obscured by the progress of the shadow. The inhabitants of the other hemisphere of the moon can never experience a solar eclipse, as the earth can never interpose between the sun and any part of that hemisphere; so that they will only know of such phenomena by report, unless they perform a journed for the purpose of observing. The length of the lunar year is about the same as ours, but different as to the number of days, the lunar year having only 12.3682 days, each day and night being as long as 29½ of ours; the length of their year, however, will be considerably difficult for the lunarians to determine. The study of the heavens in the moon is more difficult and complex than with us on the earth. The phenomena exhibited by the earth is doubtless the most difficult for the lunar people to understand. They will be apt to imagine at first view, that the earth is a quiescent body in their firmament, because it appears continually in the same point of the sky, and that the other heavenly orbs all revolve around it. On the other hand they enjoy some advantages in making celestial observations which we do not possess. Those living on the side next the earth, will be enabled to determine the *longitude* of places on the lunar surface with as great facility as we find the *latitude* of places on our globe. For as the earth keeps constantly over one meridian of the moon, or very nearly so, the east and west distances of places from that meridian may be readily found, by taking the altitude of the earth above their horizon, or its distance from the zenith, on the same principle as we obtain the latitude of a place by taking the altitude of the pole-star, or the height of the equator above the horizon. The lunar astronomers likewise possess a singular advantage over our terrestrial astronomers in the length of their nights, which gives them an opportunity of contemplating the heavenly bodies, especially Mercury and Venus, and tracing their motions and aspects for a long time without intermission. Such are some of the celestial phenomena as seen from

the moon. However different these phenomena may appear from those which we are accustomed to behold in our terrestrial firmament they are all owing to the following circumstances; *that* the moon moves round the earth as the more immediate centre of its motions; *that* it always turns the same side to the earth. These slight differences in the motions and relative positions of the earth and moon are the principal causes of all the peculiar aspects of the lunar firmament. But we shall see, as we proceed, that there is an indefinite variety of celestial scenery throughout the universe, so that no one world, or system of worlds, presents the same scenery and phenomena as another.

The Planet Mars.

We now pass on to notice the superior planets, that is, those whose orbits lie without that of the earth, concerning the nearer of which our information is more complete than it is about the inferior planets, as the latter are usually too much hidden by the brightness of the sun's rays to be distinctly observed. But the superior planets, since their orbits are outside that of the earth, are at times in opposition to the sun; at this period, too, they are in perigee, that is, at their least distance from the earth, and are, therefore, in all respects most favorably situated for observation. The nearest of these bodies to us is Mars, a name which was given by the ancients to this planet, and signifying the "God of War," which appellation appears to have been given on account of its ruddy or fiery appearance, and because the astrologers believed it to be a promoter of war and bloodshed. The diameter of this planet is 4,920 miles; its circumference 15,456 miles; and consequently its superficial area about 76,043,520 square miles, so that it ranks as one of the smaller planets of our system, its bulk being about one-eighth that of the earth. It revolves round the sun at a mean distance of 139,312,000 miles in an orbit of considerable eccentricity, the difference between its greatest and least distance being about 26,000,000 miles. When the planet is in opposition, both it and the earth are on the same side of the sun, and the distance between them then is about 48,000,000 miles. At this time the planet shines with a brilliancy almost rivalling that of Jupiter or Venus; this happens once in two years and fifty days, its *synodic* period being 780 days. When it happens to be in its perihelion at the same time, its brilliancy is still greater, and consequently this is the most favorable opportunity for telescopic observations upon it. It accomplishes its *periodical* revolution round the sun in 687 days, or about one year and ten months, which is at the rate of about

54,000 miles an hour; but as the Martian day is a little longer than ours, there will not be quite this number of days in his year. But, before it can return to the same relative position in regard to the earth and sun, or, in other words, from one opposition to another, it occupies a period of 780 days, that is, two years and fifty days, as above stated.



Figs. 116, 117 and 118.

When examined at this period with a powerful telescope, Mars is found to exhibit an appearance similar to that which the earth would probably present to the inhabitants of that planet. The surface is diversified with dark portions which represent water, and lighter parts which are the continents. These markings are found to vary a

little at times, probably owing to the presence of large masses of clouds in the planet's atmosphere; the main features are, however, sufficiently prominent to enable maps to be constructed showing the configuration of its surface. The above figures give a general idea of the appearance of the planet when seen through a large telescope. When its atmosphere is clear the land appears to be of a ruddy hue, while the water is somewhat greenish. Figure 116 represents the southern and northern hemispheres as drawn by Messrs. Beer and Mädler, who devoted many years to the examination of Mars; Figure 117 is taken from the observations of Secchi, the eminent Roman observer, at the opposition of 1858. The following are the results of Sir John Herschel's observations on this planet, made with a powerful reflecting telescope. He states that on account of the clearness of its atmosphere he has been enabled to observe with perfect distinctness the outlines of continents and oceans; that the land on its surface is distinguished by a red hue, which imparts to the planet the ruddy appearance it has when viewed with ordinary telescopes, and which its light exhibits to the naked eye. This redness he ascribes to a quality in the prevailing soil like that which our red-sandstone districts would exhibit to an observer contemplating the earth from the surface of Mars. The seas of this planet, he observes, have a greenish hue, altogether resembling the color of our own. These spots, however, are not always to be seen equally distinct, because of the varying transparency of the atmosphere; but when they are distinctly seen they always present the same appearance. Astronomers conclude that this planet is surrounded with an atmosphere of considerable extent, in which clouds at times exist; that the darker spots are water or seas which reflect a much less proportion of the solar light than land, and probably cover about one-third of its surface; that a variety of seasons somewhat similar to ours are experienced on this planet, but of a much longer duration; and that it bears a more striking resemblance to the world in which we dwell than any other planet in the solar system. It was owing to observations taken on this planet by Tycho Brahe having fallen into the hands of Kepler, that the three great laws of planetary motion, commonly termed "Kepler's laws," were discovered. These laws we shall have occasion to notice hereafter. The period of this planet's rotation round its axis has been ascertained to be 24 hours, 37 minutes, 23 seconds. The inclination of its axis to the plane of its orbit is 28° 51′, or a little greater than that of the earth. This is a reason why its seasons should resemble ours to a considerable extent. No moon has yet been discovered accompanying Mars.

The Scenery of the Heavens, as Viewed from Mars.

From this planet the earth will at certain periods be distinctly seen, but it presents a different aspect, both in its general appearance and its apparent motions, from what it does to the inhabitants of Mercury or Venus. To Mars the earth is an inferior planet, whose orbit is within the orbit of Mars. It will, therefore, be seen only as a morning and an evening star, as Venus appears to us; but with a less degree of magnitude and brilliancy, since Mars is at a greater distance from the earth than the latter is from Venus. It will present to Mars successively the form of a *crescent*, a *half-moon*, and a gibbous phase, but will seldom or never be seen as a full enlightened hemisphere, on account of its proximity to the sun, when its enlightened surface is fully turned toward the planet; nor does it ever appear further removed from the sun, either in the mornings or evenings, than 48°, which is the greatest elongation also of Venus as she appears to the earth, so that the earth never appears in the firmament of Mars about midnight. The earth will likewise be sometimes seen to pass across the sun's disc like a round black spot, as Mercury and Venus at certain periods appear to us; but the planet Mercury will never be seen from Mars, on account of its smallness and nearness to the sun; for at its greatest elongation it can appear only a few degrees from the sun's margin, and is consequently immersed in his rays. The only time when it might happen to be detected is when it makes a transit across the sun's disc. Venus will be as seldom seen by the inhabitants of Mars as Mercury is by us. Our moon may likewise be seen from Mars as a small star accompanying the earth, but never at a greater distance from each other than fifteen minutes of a degree, or about half the apparent breadth of the moon; and with telescopes such as we have, all its phases and eclipses may be distinctly perceived. The planets Jupiter and Saturn will appear to Mars nearly as they do to us. At the time of Jupiter's opposition to the sun that planet will appear a slight degree larger, as Mars is then 50,000,000 miles nearer it than we are; but Saturn will not appear sensibly larger than to us; and it is likely that the largest of the minor planets and the planet Uranus are not more distinguishable than they are from our globe. The point *Aries* on the ecliptic of Mars, one of the points where its ecliptic and equator intersect each other, corresponds to 19° 28′ of our sign *Sagittarius*. In consequence of this the poles of Mars are directed to points of the heavens considerably different from our polar points, and its equator passes through a different series of stars from that which marks our equator, which will cause the different stars and constellations, in their

apparent diurnal revolutions, to present a different aspect from what they do in their apparent movements round our globe. The sun to Mars appears somewhat over half the size he does to us.

The Minor Planets or Asteroids.

In the year 1778, Professor Bode, of Berlin, published a very remarkable law, relating to the distances of the planets from the sun, which, though it is said to have been discovered by Titus, is known as "Bode's Law." It was at first merely a bold conjecture, but has since attracted much attention, as it partly led to the discovery of the first of the minor planets or asteroids. Since, however, the discovery of the last planet, Neptune, it has again fallen to the level of a conjecture. He observes that if we take the numbers 0 3 6 12 24 48 96, each of which, after the second, is double that which precedes it, and add the number 4 to each of them, we obtain the following list, which represents approximately the proportional distance of the planets named under them:—Mercury, Venus, Earth, Mars, $\frac{4 \quad 7 \quad 10 \quad 16 \quad 28}{52 \quad 100}$, Jupiter, Saturn. Thus, if we take 10 to represent the distance of the earth, we shall find that 4 represents that of Mercury, 7 that of Venus, and so on. No planet was, however, known to occupy the space intervening between Mars and Jupiter, corresponding to the number 28. There was thus a gap left in the system, and Bode stated his conviction that, as the sky was more carefully watched, and better telescopes were employed, such a body would be discovered. Nor was his prediction long unfulfilled, for in the year 1800 six astronomers agreed to establish an association, of twenty-four observers, who should divide the zodiac between them, each taking fifteen degrees, and should search for the supposed planet. This plan soon succeeded, for on January 1st, 1801, Piazzi, an Italian astronomer, discovered a moving body which he at first supposed to be a comet, but which soon proved to be a planet afterward named Ceres, whose position corresponded very nearly with that pointed out by Bode's law. When this fact became generally known, the search was discontinued, as the system appeared now to be complete. In the course of the following year, however, Dr. Olbers discovered a second planet revolving almost in the same period, and at almost the same distance as Ceres. This planet was named Pallas, and its discovery excited great attention among astronomers, such a thing having hitherto been quite unsuspected, as that there should be two planets revolving at almost the same distance from the sun. After some time Olbers ventured a conjecture that these two planets might

be the remains of a single one that had by some means become shattered, and suggested that in this case other fragments might probably be discovered. The search was accordingly renewed, and two planets, which they respectively called Juno and Vesta, were discovered in 1804 and 1807. For many years no more were found; accordingly it was believed that all had been discovered, and that these four, Ceres, Pallas, Juno and Vesta, were the four fragments of a large planet, which had once revolved in an orbit nearly resembling theirs.

At the end of the year 1845, the discovery of a new asteroid was announced by Hencke, and again drew the attention of astronomers to the subject. Many more observers now undertook the task of trying to discover some more of those small bodies; and since that time few years have passed without some fresh names of planets being added to the list, which at present contains more than 100, all of whose orbits are situated in the space between Mars and Jupiter. These generally do not present a well-defined disc in the telescope as the largest planets do, but appear like minute stars of about the twelfth magnitude, so that the only way of observing them is by accurately noting down all the stars visible in a given small portion of the heavens, and then carefully watching, on successive evenings, to ascertain if any of these appear to have changed their positions, or if any fresh points appear among them. Three only of these planets, it is said, have been seen by the naked eye, namely, Vesta, Ceres, and Pallas, and it is only under very favorable circumstances that they can be seen. Nothing definite is yet given us as to the dimensions of these small planets, those mentioned as seen by the naked eye being accounted the largest. Their distances from the sun vary considerably, Flora, the nearest of them, being estimated to have a mean distance of 200,000,000 miles, while the farthest is reckoned as distant above 313,000,000 miles. Their times of revolution are also found to be very different, the two planets just named taking respectively 3·266 and 6·413 years to complete their revolutions.

Owing to their small size and great distances, very little is known as to the nature or character of these small planets; traces of an atmosphere have, however, been discovered round some of them, that surrounding Pallas appearing to have great density.

The theory of Olbers, as to these small planets being fragments of a large planet which had been shattered by the action of some internal force, was adopted by some; while others held that they might have resulted from a planet having been shattered by a collision with a comet; both of which theories to account for the existence of planets which are found to be so widely separated from each other, and to revolve round the sun in such widely different periods in

their respective orbits, seem as unreasonable as they are groundless. The discovery of so many should, however, be sufficient to incite astronomers to continue their researches for many others which yet remain undiscovered in our system.

The Heavens, as seen from the Minor Planets.

To some of these planets, revolving as they do at nearly the same mean distance from the sun, the appearance of the heavens will be very similar. The planet Jupiter will be the most conspicuous object in the firmament of them all, and will appear to most of them at least of three or four times the size and splendor he does to us, so as to exhibit the appearance of a small brilliant moon. Saturn will appear somewhat larger and brighter than to us, but the difference in his appearance will be inconsiderable; nor will Uranus be more distinctly visible than from the earth. At other times, as when near their conjunction with the sun, these planets will appear smaller than to us. Mars will sometimes appear as a morning and an evening star, but he will always appear in the immediate neighborhood of the sun, and will present a surface much less in apparent size than he does to the earth. The earth will rarely be seen on account of its proximity to the sun; and Venus and Mercury will be altogether invisible in all of them unless they may happen to be seen when transiting the solar disc. It is likely that at certain times most or all of these planets will exhibit an uncommon, and occasionally a brilliant, appearance in the firmament of each other. In their revolutions round the sun they may, in parts of their orbits, approach each other so as to be many times nearer each other in one part of their orbits than in another. These different positions in which they may be placed in relation to each other will doubtless produce a great variety in the appearances they present in their respective firmaments; so that at one time they may present in the visible firmament a surface a hundred or even two hundred times greater than they do in other parts of their orbits. It is probable, therefore, that the diversified aspects of these planets in respect to each other will form the most striking phenomena which diversify their nocturnal heavens. In consequence of the great eccentricity of the orbit of some of them, as Pallas, the sun will appear much larger to them in one part of their course than it does in another.

The Planet Jupiter.

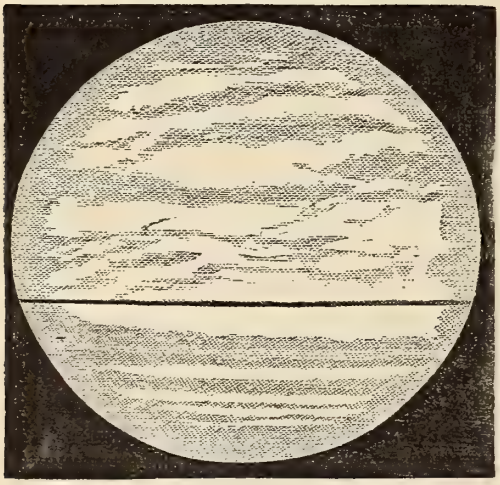
Beyond this group of small planets, which we have been considering, lies the planet Jupiter, the largest known body connected with

our system, the sun only excepted. The dimensions of the diameter of this planet are given variously, but, taking the smallest amount we find for his equatorial diameter, this is 85,390 miles, or more than ten times as great as that of the earth. Its circumference, therefore, is 268,261 miles, and its superficial area 22,906,806,790 square miles, about 117 times that of the earth. And as globes are to each other as the cubes of their diameters, and the cube of Jupiter's diameter is 622,617,094,819,000 miles; and the cube of the earth's diameter is 495,476,997,497, dividing the former by the latter, the quotient is 1257 nearly, which shows that Jupiter as a solid globe is nearly twelve hundred and fifty-seven times larger than the earth.* Conceive for yourself a superficial area, one hundred and seventeen times larger than that of our terraqueous globe; and of twelve hundred and fifty-seven globes of the size of the earth having to be rolled into one in order to make one of the size of Jupiter; its mass, as compared with the sun's, is estimated as 1 to 160,709. The mean distance of this planet from the sun is 475,693,000 miles; consequently from the earth 380,693,000 miles; and it performs its orbitual journey round the sun in 4332.58 days, or a few weeks less than twelve of our years. It moves in its orbit at the rate of 29,000 miles an hour, a rate of speed considerably less than half that of the earth. We always find, however, that the farther the planets are removed from the sun, the less is the rate of speed at which they move, and conversely. The axis of this planet being nearly perpendicular to the plane of its orbit, it cannot have the same variety of seasons as the earth and Mars. Its inclination is, however, 3° 5′, which will produce a slight change of seasons both in the polar and equatorial regions. Had the axis been as much inclined to the orbit as the earth's axis is, the polar regions would respectively have been deprived of the light of the sun for nearly six years without interruption, or one-half of the year of Jupiter. The plane of Jupiter's orbit is inclined very slightly to the plane of the ecliptic, or earth's orbit, and hence it is difficult to determine that exact point at which they intersect, and to ascertain in the usual way the length of its year. This, however, is

* The proportion of the circumference of a circle to the diameter is nearly as 22 to 7,—more accurately as 3.1416 to 1. Therefore if we multiply the circumference by 7 and divide the product by 22, we obtain the diameter nearly. And by multiplying the diameter by 22, and dividing the product by 7, we obtain the circumference. But we obtain the result more accurately by multiplying the diameter by 3.1416 in order to obtain the circumference; and by dividing the circumference by 3.1416 in order to obtain the diameter. The superficial area is obtained by multiplying the square of the diameter by 3.1416; and the solid contents by the formula $D^3 \times \frac{\pi}{6}$

readily overcome by ascertaining its synodic period, or the time which intervenes from one opposition of the planet to another, and calculating from this its siderial period.

When Jupiter is examined by means of a good telescope the most remarkable feature which strikes the observer is a number of almost parallel belts which characterize its surface, which may be slightly perceived in the accompanying view of the planet. Sometimes frequent and rapid changes take place in the number and appearance of these belts; at other periods, they remain long almost unchanged. It has been a subject of much speculation among astronomers as to the views which should be entertained respecting the nature of these belts, and the causes which operate in producing the changes which frequently take place among them. Whatever opinion may be entertained on this point, it is pretty evident that the dark stripes, or belts, are the real body of the planet, and the bright spaces between them, or scattered among them, are clouds on its atmosphere, or cloudy zones, liable to variation, which surround the body of the planet at a certain distance from its surface. Distinct markings or spots are sometimes visible on these belts, and remain constant sufficiently long to enable the time which the planet takes in rotation on its axis to be ascertained, which, as a result of many observations, has been determined to be 9 hours 55½ minutes. This is, as will be observed, less than half the time occupied by the earth, or any other of the planets we have yet considered in their diurnal rotation, and is the more remarkable when we consider the vast size of Jupiter. The equatorial regions of the surface of this planet must thus move about 460 miles a minute, while the speed of the corresponding portions of the earth is only about 17 miles in the same time.



By observing the attractive influence of the planets on each other astronomers are enabled to calculate approximately their respective densities; and thus they find the density of Jupiter to be less than a quarter that of the earth, or in other words that Jupiter, taken bulk for bulk, weighs less than a quarter as much as the earth does. The density of the earth is estimated at 5½ times that of water.

Jupiter, therefore, has a density a little greater than water. Future observations may, however, give somewhat different results as to the time of axial rotation and the density of this planet. The intensity of the solar light on Jupiter is 27 times less than on the earth; this however, will produce a large degree of illumination, if that planet has an atmosphere and surface anything like ours, to reflect the light. An observer situated on Jupiter would have no suspicion that such a globe as the earth has an existence in the universe; all its fancied grandeur and its proud inhabitants are as much unnoticed and unknown there, as is the smallest animalcule in the drop of water by the unaided eye.

The telescope also discloses to us the fact that Jupiter is accompanied by four satellites, or moons. Three of these were discovered by Galileo on January 7th, 1610, when he first directed his newly invented telescope toward the planet; and the fourth a few evenings later. A comparatively low power, such as that of a good opera-glass suffices to show them all distinctly; the telescope Galileo used magnified only 33 times. Three of these satellites revolve round Jupiter in orbits which are almost circular, and very slightly inclined to the plane of the planet's equator. Owing to this circumstance the three nearer ones to the planet are eclipsed every revolution, so that the phenomena of eclipses are far from rare to the inhabitants of Jupiter there being about 4,500 lunar eclipses in one Jovian year, about twelve of our years. It has been deduced from the observations of Sir W. Herschel and others that the moons of Jupiter always present the same side toward the planet, and make one rotation on their axis during one revolution round their primary, which corresponds with what we find in the case of our moon, which, as before shown, always presents the same hemisphere toward the earth, and makes one rotation on its axis while making one revolution round the earth. The eclipses and transits of these bodies are very interesting phenomena, and may easily be observed with an ordinary telescope. A full list of these is given in the "Nautical Almanac" for each year, and scarcely a day passes without some of them being observed. They are frequently used in determining the longitude of any station of observation at sea. When any of the satellites passes between the earth and the planet, it is seen in transit as a bright spot on its face; its shadow is also seen as a dark spot a little distance from it, presenting the appearance of two satellites in transit. The annexed table gives in a concise manner the most important facts concerning the satellites.

Name.	Mean Distance from Planet.	Siderial Period.	Diameter.
Io	267,380 miles.	1 day, 18 hours, 27 minutes.	2,252 miles.
Europa	425,160 "	3 " 13 " 14 "	2,099 "
Ganymede . . .	678,390 "	7 " 3 " 43 "	3,436 "
Callisto	1,192,820 "	16 " 16 " 32 "	2,929 "

The first of these satellites is considerably larger than our moon; the second very nearly of the same size; the third is nearly seven times the bulk of our moon; the fourth is about three times that bulk, so that the whole of Jupiter's satellites are equal to about a dozen of our moon. The circumference of the first satellite is 7,074 miles; of the second 6,294 miles; of the third 10,794; and of the fourth 9,201 miles; the superficial contents of the first satellites would consequently be 15,930,648 square miles; that of the second 13,840,806 square miles that of the third 37,088,184 square miles; and that of the fourth 26,949,924 square miles. The number of square miles, therefore, on Jupiter's four satellites would be nearly 93,809,562 square miles, or nearly ninety-four millions of square miles, which is about double the extent of surface on all the habitable parts of our globe. Doubtless they are replenished with a large number of inhabitants for which they possess such ample capacity. The first satellite, it is seen, revolves at a little further distance from the planet than the moon does from the earth; the second at nearly double that distance; the third at nearly treble that distance, the fourth at nearly six times that distance.

The Heavens as viewed from the Satellites and from Jupiter.

From his satellites Jupiter will appear as a large and resplendent moon in their firmament; sometimes appearing in the zenith; sometimes in the horizon; and in other positions according to the position the spectators occupy on the surface of the satellites. From the first satellite the globe of Jupiter will appear 1459 times larger than the moon does to us, and will exhibit in the course of 21 hours all the diversified phases of the moon, a crescent, a gibbous phase, a half-moon, and a full enlightened hemisphere. Besides, the appearance of the other three moons in its firmament will be highly interesting and sublime. At certain times one of these moons will come so near the first satellite as to appear three times larger than our moon does to us; and at other times it will appear six times smaller than in its former position and a variety of other phenomena will be presented to it from the complex motions of this system of bodies which it would be too tedious here to describe, all of which will present to view objects of surpassing grandeur and sublimity, incomparably superior to what we are accustomed to behold in our nocturnal sky. What has been now stated with reference to the first satellite will also apply in general to the other three satellites, with this difference, that Jupiter will appear of a different magnitude from each satellite; and the magnitudes, motions and aspects of the other satellites will likewise

be somewhat different. In each satellite the great globe of Jupiter, appearing motionless in the sky, will be the most conspicuous object in their firmament. To the second this globe will appear 566 times larger than our moon does to us; to the third 216 times; and to the fourth 70 times the apparent size of the full moon. Each satellite, too, will have a variety of other phenomena peculiar to itself. To each of them the occultations of the other satellites by the body of Jupiter; their eclipses by falling into his shadow; the varieties of the surface of Jupiter, caused by his diurnal rotation; the shadows of the satellites passing like dark spots across his disc; the transits of the satellites themselves like full moons crossing the orb of Jupiter; the diversified phenomena of eclipses, some of them happening when the satellite is like a crescent, or half-moon, and some of them when it appears as a full enlightened hemisphere; and scarcely a single day will pass without some of these phenomena, and many others being observed. The length of the day as has been shown, is different in each satellite.

The only planet which will be conspicuous in the firmament of Jupiter is the planet Saturn, which will appear larger than either Jupiter or Venus does to us, especially at the time of its opposition to the sun. The planet Uranus which is scarcely distinguishable to our unassisted sight, will not be more distinguishable at Jupiter than with us, even at the time of its opposition. Mars will not be seen from Jupiter, both on account of its smallness, and of its proximity to the sun. The earth will be invisible from Jupiter both on account of its small size, its distance, and its being in the immediate vicinity of the sun, immersed in his rays. But although so few of the primary planets are seen in the nocturnal sky of this planet, yet his firmament will present a remarkable appearance by the number of his own satellites, especially as they all perform their journeys round the planet in such short periods of time, and hence their changes occur in rapid succession. These four moons will exhibit many curious and sublime phenomena to the inhabitants of Jupiter, as they run their nocturnal courses through his sky: sometimes they will be seen eclipsing each other; sometimes eclipsing the sun, and at other times the stars; sometimes two, three, and even the whole four will be seen shining in the heavens in one bright galaxy; one perhaps in the form of a crescent, one with a gibbous phase, one like a half moon, and the other with a full enlightened hemisphere. One will be seen moving comparatively slow, and another moving rapidly through the sky, and leaving all the rest behind it. One will be seen under an eclipse, another entering into it, and another emerging from it. One of the satellites will cast the shadows of objects toward the north, another toward the south,

another toward the east, another toward the west, and in all directions upon the surface of Jupiter. These and many other celestial phenomena must be highly interesting to the astronomers and all others connected with this far distant world. On the whole, the planet Jupiter, accompanied by his satellites, presents to our view an object of inexpressible grandeur and sublimity, when we contemplate the vast magnitude of this magnificent globe and the velocity with which it moves, accompanied by its moons, through the regions of space.

The Planet Saturn.

The intervals between the planets are now becoming wider and wider, and we have to pass nearly 400 millions of miles beyond the orbit of Jupiter before we reach that of Saturn. This planet may justly be considered as in almost every respect the most magnificent and interesting body within the limits of the planetary system, so far as yet discovered. Viewed in connection with its satellites and rings, it comprehends a greater extent of surface than even the system of Jupiter; and its majestic rings constitute the most singular and wonderful phenomena that have yet been discovered. The mean distance of this planet from the sun is 872,135,000 miles; but owing to the eccentricity of his orbit, the real distance may be greater or less than this by nearly 50,000,000 miles. His mean distance from the earth is 780,705,000 miles, an interval which a cannon ball, flying with its utmost velocity without intermission, could not travel in less than 178 years, and a steam carriage, moving at the rate of twenty miles an hour, could not traverse in less than 4,448 years. Saturn accomplishes his orbital journey round the sun in 10,729.2 days, or nearly 29½ of our years, its motion being over 20,000 miles an hour, or less than one-third that of the earth. In point of size it is next to Jupiter in our system, having an equatorial diameter of 71,904 miles. Here we may observe that astronomers determine the polar diameter of this planet, as well as that of Jupiter, the earth and others, to be somewhat shorter than the equatorial diameter. The difference, however, in any of these cases is very slight, in some of them scarcely at all noticeable. And even these differences are determined variously by different astronomers, and continued observations with more perfect instruments may eventually show all these bodies to be perfect spheres, or that their diameters are equal, excepting so far as they may differ on account of the natural elevations and depressions of the surfaces of the planets. The circumference of Saturn measures 225,893 miles, and its superficial area

16,242,610,272, or over sixteen thousand millions of square miles, an extent of surface over 82½ times that of our terraqueous globe.

The motion of this planet being slow as compared with that of the other planets, if it be once recognized in the heavens near any large fixed star it will be found from year to year making a slow progress to the eastwards of that point. Its apparent motion in that direction in the course of a year is little more than twelve degrees, or less than the moon moves in twenty-four hours. Hence if we perceive this planet in any particular point of the heavens this year, at the same time next year it will appear only about 12° farther to the east.

Notwithstanding the dull appearance Saturn presents to the naked eye, when viewed through a powerful telescope it presents a more regular and magnificent appearance than any other body connected with our system; and were it as near us as Mars, or even Jupiter, it would present a splendid appearance even to the naked eye. The ancients who first traced the motions of the planet could form no adequate idea of the grandeur of Saturn, and of the system of which it is the centre; and their astrologers, on account of his pale leaden hue, accounted him a cheerless unpropitious planet, and as shedding a malign influence upon the inhabitants of the earth. But after ages of darkness and superstition had rolled away the telescope was invented, and by the aid of this noble instrument, which has unfolded to us the wonders of the heavens, a system of revolving bodies were discovered connected with this planet, more wonderful and magnificent than any other object with which we are acquainted. With powerful telescopes four or five belts have been discovered on his surface, which seem broader and less strongly marked than those of Jupiter, and do not appear subject to the variations which are seen in Jupiter's belts, and, therefore, they are thought most probably to form permanent portions of the globe of Saturn, indicating that there is a diversity of surface on this planet, but whether land or water, or any other particular substance, is not yet clearly determined. The quantity of light this planet receives from the sun is only the $\frac{1}{90}$th part of what we receive; for Saturn is about 9½ times the distance from the sun that the earth is, the square of which is 90¼, and the quantity of light the planets receive is in inverse proportion to the squares of their distances from the sun. But that quantity of light is estimated as equal in effect to the light which would be reflected by a thousand full moons such as that connected with our earth. As we have remarked before, however, upon the nature of the atmosphere which surrounds a planet, as well as upon the nature and character of its surface, much depends as to the

degree of illumination which will be enjoyed on it. If the atmosphere of Saturn be as dense and its surface as rough as those of the earth that planet will enjoy a good degree of light. The density of this planet is estimated as less than that of any other planet in our system. The true period of Saturn's rotation on its axis has been difficult to determine; it is, however, set down at a few seconds

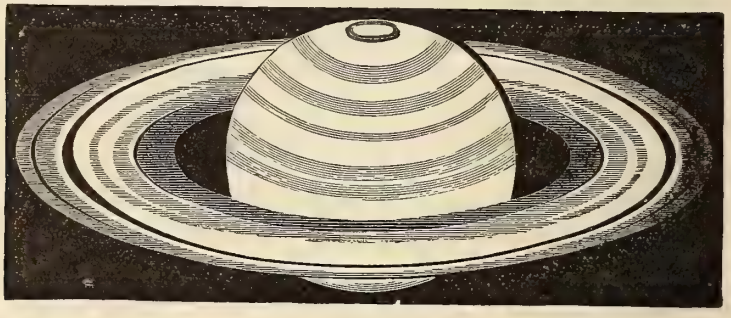


Fig. 120.

short of $10\frac{1}{2}$ hours. It is remarkable that La Place, from physical considerations, had calculated the time of rotation of Saturn to be nearly that stated, before Sir W. Herschel had determined it by direct observation. Future observations with improved instruments may probably disclose something different as to the time of its axial rotation and density. The eccentricity of Saturn's orbit is 49,000,000 miles, which is about the $\frac{1}{36}$th part of the diameter of its orbit. Its inclination to the ecliptic is $2°\ 29\frac{1}{2}'$.

Saturn is attended with a more numerous train of satellites than any other planet in the solar system that has yet been discovered. Eight moons have been discovered moving around it in solemn grandeur, diffusing light over its surface in the absence of the sun, and greatly diversifying the scenery of its firmament. Two of these, the second and seventh, can only be seen with the most powerful telescopes, and several of the others require a good instrument in order to show them well. Owing to their great distance and small sizes, our information concerning them is quite limited. The annexed table exhibits in a concise form the most important facts known concerning them. The diameters, however, with the exception of that of the sixth, are doubtful:

	Mean Distance from Planet.	Siderial Period.	Diameter.
1st	120,800 miles.	0 day, 27 hours, 37 minutes.	1,000 miles.
2d	155,000 "	1 " 8 " 53 "	? "
3d	191,000 "	1 " 21 " 18 "	500 "
4th	246,000 "	2 " 17 " 41 "	500 "
5th	343,000 "	4 " 12 " 25 "	1,200 "
6th	796,000 "	15 " 22 " 41 "	3,300 "
7th	1,007,000 "	21 " 7 " 8 "	? "
8th	2,314,000 "	79 " 7 " 55 "	1,800 "

Astronomers differ considerably as to the diameters of these satellites; and we incline to think them in general much larger bodies than the diameters given would indicate them to be. The orbits of the three first mentioned of these are much nearer to the planet than that of the moon is to the earth; that of the fourth is a little over that distance; that of the fifth nearly $1\frac{1}{2}$ times that distance; that of the sixth somewhat over $3\frac{1}{4}$ times that distance; that of the seventh over four times, and of the eighth over nine times that distance. The orbits of the seven interior satellites are found to be nearly circular, and very nearly in the plane of the planet's ring, which we shall soon consider; that of the eighth approaches nearer in coincidence with the ecliptic.

Some phenomena of the Satellites as viewed from the surface of Saturn. Description of the rings and scenery of the heavens as viewed from Saturn, his satellites and rings.

These satellites, like those of Jupiter, undergo frequent eclipses; but on account of their great distance from the earth these eclipses are not often observed. It is evident that such a numerous assemblage of moons revolving round this planet at different distances, and in different periods of time, will present a most beautiful, diversified, and sublime appearance in the heavens of Saturn, especially when all the eight satellites appear at the same time above the horizon. Then one will appear as a full moon, another as a crescent, another as a half-moon or with a gibbous phase; one entering into an eclipse, another emerging from it; the inner satellites, on account of their proximity to the planet, presenting the largest discs and the most splendid appearance, and moving with great velocity in their orbits, rapidly passing the other satellites at different rates of motion, and leaving them behind in their course.

On the surface of Saturn a curious effect will be produced, and a diversified scene presented. The shadows of all objects will be projected in different directions by the different satellites, according to their varying positions in the heavens. One satellite will project the shadow of an elevated object towards the east, another towards the west, a third will cast it towards the north, a fourth toward the south, and the shadows will be cast in a variety of directions according to the number of satellites above the horizon, and the positions they occupy in the firmament; and the swift motions of the first three satellites will cause the direction of their shadows rapidly to change. In addition to all this diversity of sublime scenery, there is the grand spectacle produced by the magnificent rings encircling the planet which we shall now endeavor to describe.

This ring surrounding the planet being compound, that is, made up of two or more concentric rings, is the most remarkable peculiarity of Saturn, and, as before remarked, appears to be quite unique in the whole system. To the early observers it caused considerable of curiosity and wonder. Galileo, when he first directed his telescope to the planet, observed that it was somewhat elongated, as if it were oval in shape instead of round, the power of the early telescope not being sufficient. nor their definitions good enough, to show the real cause of the appearance. After some time he advanced an opinion that the planet was really triple, having a small satellite on each side of it. This theory obtained for some time, till gradually the ring began to be presented edgewise to the earth, and then disappeared altogether. This the astronomers of that time were unable to explain, and were, on that account, very much perplexed; but, after the lapse of about half a century, Huygens discovered the real cause of these appearances, and announced that Saturn was surrounded with a slender flat ring, nowhere touching it. He also predicted the period when it would again become invisible, and proved to be very near correct in his dates. After a short time it was discovered that instead of one ring, there were two concentric ones; and numerous recent observations go to show that these again are divided, so that we look upon the whole as a compound or multiple ring, made up of several distinct and separate ones. Three of these are well marked, the innermost of which is commonly known as the *dusky ring*, and seems partially transparent, probably from an accumulation of water near its edge. (See figure 120.) From several phenomena which have been observed, there is thought to be ground for supposing that one or more of these rings may be fluid rather than solid; and most probably they are partially fluid. The diameter of the outer bright ring is estimated at nearly 170,000 miles, and its breadth at upwards of 10,000. The interval between this and the inner bright ring is given by Sir W. Herschel at 2839 miles, which is 700 miles more than the diameter of our moon; so that a body as large as our moon would have place to move between the rings. The breadth of the inner bright ring is 17,000 miles, and that of the dusky ring about half that amount, so that the united breadth of the whole would be about 35,000 miles. Their thickness is, however, small, being variously estimated at from 40 to 250 miles. Astronomers differ somewhat as to the dimensions of these rings, some having them larger than is here given. The superficial contents of these rings, reckoning both their sides and edges, are computed at over 120 times the area of the whole earth; so that they possess ample space for the accommodation of vast numbers of inhabitants,

with which, doubtless, they are abundantly replenished. From the observations of Sir W. Herschel, and others, it has been concluded that there are irregularities on the surface of the rings analogous perhaps to mountains and vales of vast extent; and that the occasional disappearance of the *ansae* may possibly arise from a curvature in their surfaces. Herschel was also of the opinion that the edge of the exterior ring (or that edge which he could observe best with his telescope,) is not flat but curved. This would lead us reasonably to infer that the rings may be inhabited on all their sides and edges, just as our globe is inhabited on all its opposite sides. This astronomer considered, too, that the rings are not less solid than the body of the planet, which consideration was doubtless in the main correct, and which bespeaks a solid uneven surface, at least in part, for the rings. By means of several protuberant points connected with the rings, Sir W. Herschel discovered that it has a swift rotation round the globe of Saturn, which it accomplishes in 10 hours, 32¼ minutes. Secchi, however, sets it down at 14 hours, 23⅓ minutes. The ring is everywhere distant from the surface of the planet over 20,000 miles; so that two or three globes of the size of the earth might be interposed between them. This magnificent appendage keeps always the same position with respect to the planet; is incessantly revolving round it; and at the same time moving along with the planet in its revolution round the sun. When viewed through a good telescope the appearance of the system of Saturn is very beautiful. At times the ring is presented with its edge toward us, and is then almost invisible, being just discernible as a thread of light along which some of the satellites appear to be moving. As the earth moves out of the plane of the planet's equator the ring opens out wider and wider, the projecting sides having the appearance of handles, whence their technical name *ansae*. The opening of the ring attained its maximum in August, 1869; its edge will therefore be directed toward the earth again about the close of the year 1876. The phenomenon of the disappearance of the rings takes place at intervals of fourteen years and nine months, and happens when the planet is in 170° and 350° of longitude, or in the 20th degree of Virgo, and the 20th degree of Pisces. Sometimes the sun is on one side of the plane of the rings, and the earth on the other. The dark side is then turned towards us, and the ring is invisible. In Figure 120 is a good view of the rings as seen in 1852 by Mr. Dawes.

Saturn and his rings would present a more splendid and interesting appearance through our telescopes could we view the rings not obliquely, but as at right angles to our line of vision; but as we

view them our eye is never more elevated than 30° above the plane of the rings. The sun shines on one side of this compound ring during a period of fifteen years, and the regions of Saturn which lie under the dark side suffer a solar eclipse under its shadow during this period. But doubtless this loss of light is amply compensated by the light of the satellites.

Recent observations reveal the fact that the planet is not situated exactly in the centre of the rings, one of the *ansae* being longer than the other; another fact is that the dimensions of the rings appear to vary from day to day in a way that is explained by supposing the rings to be elliptical, and that they would thus present this appearance in their rotation round the planet. This oscillation of the rings about the planet is believed to be necessary to the maintenance of permanent equilibrium in the system of Saturn; for astronomers demonstrate from physical considerations that were they mathematically perfect as to their circular form, and exactly concentric with the planet, "they would form a system in a state of unstable equilibrium, which the slightest external power," (such as the attraction of the satellites,) "might completely subvert by precipitating them unbroken on the body of the planet." "The observed oscillation," says Sir J. Herschel, "of the centre of the rings about that of the planet is in itself the evidence of a perpetual contest between conservative and destructive powers, both extremely feeble, but so antagonizing one another as to prevent the latter from ever gaining an uncontrollable ascendancy, and rushing to a catastrophe." It appears, too, that the ring rotates on its axis in exactly the same time that the planet does, which would go to show the time of rotation determined by the elder Herschel as more correct than that stated by Secchi, for he goes on to say: "The smallest difference of velocity between the body and rings must infallibly precipitate the latter on the former, never more to separate; consequently, either their motion in their common orbit round the sun must have been adjusted to each other by an external power with the minutest precision, or the rings must have been formed about the planet while subject to their common orbitual motion, and under the full, free influence of all the acting forces." At the rate of axial motion given to the planet and rings by the Herschels, the parts about the planet's equator must move 22,476 miles an hour, and the exterior circumference of the outer ring 53,176 miles an hour, 886 miles a minute, or fifteen miles a second. We cannot therefore, possibly conceive of any external power as adjusting their motion to each other in their common orbit round the sun "with the minutest precision," nor of the rings being formed about the planet "while subject to their common orbitual

motion" with such a velocity, "and under the full, free influence of all the acting forces," such as the centripetal and centrifugal forces of gravity, and the various forces of attraction from different directions in full operation. Such a thing, as we have had occasion to remark before, in a former part of this book, is altogether unreasonable, and inconceivable to us to have taken place. That system is doubtless as permanent as the system of the earth.

In consequence of the vast dimensions of these rings, and the large space they occupy in the firmament of the planet, they will present a magnificent spectacle from the regions of Saturn which lie under their enlightened sides, especially those places which are situated not far from the planet's equator. They will appear as vast shining arches spanning the heavens from one side of the horizon to the other, and holding an invariable position among the stars. Toward the poles of the planet the rings will be quite invisible on account of the convexity of the globe of Saturn interposing between them and the observer; but near the polar regions a segment of the rings will appear, presenting a brilliant appearance in the horizon. Advancing from those regions toward the equator they will appear to span the heavens like brilliant arches of different degrees of magnitude, until at the equator they will appear a complete semicircle. During the space of fourteen years and nine months, which is half of the year of this planet, the sun shines on one side of these rings without intermission, and during a like period he shines on the other side. During nearly fifteen years, therefore, the dwellers on one side of the equator will be enlightened by the sun in the daytime and the rings by night, while those on the other hemisphere, who live under the dark side of the ring, suffer a total eclipse of fifteen years continuance, during which they never see the sun. As the sun ceases to shine upon one side of the ring and is about to shine on the other, the rings will be invisible for a few days or weeks to all the inhabitants of Saturn.

The prominent parts of the celestial scenery of Saturn may be considered as belonging to his own system of rings and satellites, and the views which will occasionally be opened of the firmament of the fixed stars, for but few of the other planets will appear in its sky. Jupiter will appear alternately as a morning and an evening star with about the same degree of brilliancy it exhibits to us, but it will never be conspicuous except near the period of its greatest elongation, and it will never appear removed from the sun further than forty-one degrees, and consequently will not appear so conspicuous or for such a length of time, as Venus does to us. Uranus is the only other planet which will be visible from Saturn, and it

will be distinctly perceptible as a star of the third magnitude when near the time of its opposition to the sun. All the other planets, such as Mars, the Earth, Venus, Mercury, and our Moon, will be far removed from the view of the inhabitants of Saturn, being all in the immediate vicinity of the sun, and immersed in his rays.

But notwithstanding all this the sky of Saturn will present a most diversified and interesting appearance. No pictorial representation, however ample the scale, can convey even an approximate idea of the august and splendid objects which adorn his nocturnal firmament; for besides the rings, which form the most striking and magnificent spectacle, there are the eight moons, three or four of which generally diversify his celestial hemisphere, appearing in different positions and with different phases, and sometimes the whole eight satellites in one bright galaxy may be seen pursuing their different courses among the stars, and rapidly shifting their positions and aspects. Let us picture to ourselves one moon four times as large in apparent size as ours shining in the canopy of heaven; another three times the apparent size of ours in another quarter of the sky; a third apparently twice as large; a fourth about the apparent size of our moon; and a fifth, sixth, seventh and eighth, of different apparent magnitudes; some of them appearing as a crescent, some with a gibbous phase, and others with a full enlightened hemisphere; some rising, some setting, one entering into an eclipse, and another emerging from it; let us conceive such scenes as these, and we may acquire some general idea of the phenomena presented in the heavens of Saturn.

Also, each of the satellites of Saturn will have celestial scenery peculiar to itself. To each of them the globe of Saturn, surrounded by the immense rings, will appear the most conspicuous object in the firmament. From the first satellite, the globe of Saturn will appear 5400 times larger than the moon does to us. The moon occupies only the $\frac{1}{90,000}$th part of our firmament, but the globe of Saturn will fill the $\frac{1}{17}$th of the firmament of his first satellite, and the rings will occupy an extent two or three times greater; so that the planet with his rings will appear the most grand and magnificent object in the sky. In some positions on this satellite it will appear in their zenith, or above their heads; in others in the horizon, and in other positions in the sky, according to the position which the spectator occupies upon the satellite. It is not likely that more than half of the globe of Saturn will be visible from this satellite, on account of the interposition of the rings, and as its orbit is very nearly parallel with the plane of the rings, the surfaces of these rings will be seen in a very

oblique direction, but still they will exhibit a very resplendent appearance. When the edge of the outer ring is opposite to the satellite, and enlightened by the sun, it will present a large arch of light in the heavens on each side of the planet, above which will appear half the hemisphere of Saturn. If the satellite turn round its axis in the same time it takes to revolve around its primary, as is most probable, Saturn and his rings will appear stationary in the heavens, for the parallelism of the ring's axis is maintained throughout the whole revolution, and the planet will present to the inhabitants of the satellite a variety of phases, as a crescent, a half-moon, a gibbous phase, and a full enlightened hemisphere. The rings will likewise appear to vary their aspect during every revolution, beside the variety of scenery they will present during their rotation. At one time, they will exhibit large and broad luminous arches; at another time they will appear as narrow streaks of light; and at another like dark belts across the disc of Saturn. And as this satellite moves round the planet in the course of 27½ hours these appearances will be changing almost every hour. The appearances of the seven other satellites, continually varying their phases, their apparent magnitudes, and relative aspects; their positions in respect to the body of Saturn and its rings; their occultations by the interposition both of the rings, and the planet, and the eclipses to which they are often subjected, will produce a diversity of phenomena, and a grandeur unexampled in the case of any other moving bodies in our system. The second satellite when in opposition, or in its nearest position to the first, will be only 35,000 miles distant; and although it is not believed to be larger than our moon, will present a surface sixty times larger than the full moon does in our sky. It will present all the phases of the moon in the course of 33 hours, and will be continually changing its apparent magnitude, on account of its removing farther from or being nearer to the first satellite. The third satellite will appear nearly half as large, and will present nearly the same variety of phases as the other. All the other satellites will appear smaller in proportion to their distances from the orbit of the first; but they will probably all appear larger than or as large as our moon, except the seventh and eighth, which will appear much smaller.

The eighth satellite, which is reckoned among the largest, will have a scenery in its firmament somewhat different from that of the first. As its orbit is considerably inclined to the plane of the rings, its inhabitants will have a more extensive prospect of the rings than those of the seven interior satellites whose orbits are in the plane of the rings, although these objects are beheld at a greater distance, and consequently do not fill so large a portion of its sky. Their appear-

ance, however, will not be without splendor; for although the orbit of this planet is nine and seven-tenths times the distance between the earth and the moon, yet the body of Saturn will appear fourteen times as large as the moon does to us, and the rings will occupy a space proportionately more expansive. The phases of Saturn and his rings, and the various changes of aspect which they assume, will be distinctly seen, though on a smaller scale, than from the inner satellites; for the whole body of the planet as well as the rings will in most cases appear full in view. The intermediate six satellites will appear in all the different phases and aspects above described, and they will never appear to remove to any great distances from the globe of Saturn; but will appear first on one side, then on another, and sometimes either above or below the planet, as the inferior planets appear to us in relation to the sun; and consequently that part of the firmament in which Saturn appears will present a most splendid aspect. In this respect the relative positions of the satellites as seen from the outermost, will be different from their positions as seen from the innermost satellite, when they will sometimes be seen in regions of the sky directly opposite to Saturn. All the other satellites of this planet will have phenomena peculiar to themselves in their respective firmaments, and to each the globe and rings of Saturn will appear of a size in proportion to the distance at which it is from it; to the second satellite Saturn appears 3456 times the size of our full moon; to the third 2160 times; to the fourth 1350 times; to the fifth 683 times; to the sixth 125 times; and to the seventh nearly 15 times; and in all of them a similar variety of phenomena, as in the case of the first, are exhibited on a scale of grandeur and magnificence.

Conceive, then, a firmament in which is shining a globe five thousand times larger than the apparent size of our moon; conceive luminous arches still more expansive surrounding this globe; conceive eight moons of different apparent magnitudes, some of them sixty times larger in apparent size than our moon; conceive, further, all these bodies sometimes appearing in one part of the heavens, sometimes in another, changing their phases and apparent magnitudes, and distance from each other, every hour; appearing sometimes like a large crescent, sometimes like a small one; sometimes shining with a full enlightened face, and sometimes undergoing a total eclipse; sometimes hidden behind the large body of the planet, and sometimes crossing its disc with a rapid motion, like a circular shadow. Suppose these and many other diversified phenomena presenting themselves with increasing variety in the canopy of

heaven, and you will have some slight idea of the grandeur of the firmament as seen from some of the satellites of Saturn.

On the rings there will be a greater diversity of celestial scenery than any we have yet described. There will be at least ten varieties of celestial scenery, according as the spectator is situated on different parts of the rings. Two opposite varieties of scenery will be exhibited from what appear to us the upper and lower sides of the rings; one variety of scenery will be exhibited from the exterior edge of the outer ring; another from its interior edge; one variety from the exterior edge of the second ring; another from its interior edge; one variety of scenery will appear from the exterior edge of the interior bright ring, another from its interior edge; one from the exterior edge of the dusky ring, another from its interior edge. By referring to the figure, the reader will perceive there are four rings distinctly marked. To describe all these varieties in minute detail would fill a volume. We shall have to confine ourself to a brief description of one of these celestial views. Those who dwell on the sides of the rings will behold the one-half of the hemisphere of Saturn, which will fill perhaps the one-fifth or the one-sixth of their celestial hemisphere, while the other portions of the planet will be hidden by the interposition of the rings. Those who are near the interior and dusky rings are only some 20,000 miles from the surface of Saturn, and consequently the varieties on its surface will be perceived. Those near the outer edge of the exterior ring are about 60,000 miles from the surface of the planet, which will consequently appear to them four times less in size than the former. But being only 18,000 miles from the first satellite at the time of its opposition to Saturn that satellite will appear more than 350 times larger than our moon, will rapidly assume different phases, and will be continually varying in its apparent magnitude; and at its greatest distance beyond the opposite side of the rings it will appear at least 170 times less than when in the nearest point of its orbit; and will exhibit all the intermediate varieties of aspect within a little over a day; so that this satellite will be continually varying its apparent size from an object two or three times the apparent dimensions of our moon to one 350 times greater. The same may be said with respect to the other seven satellites, with this exception, that they will appear of smaller magnitudes, and the periodic times of their phases and their changes in apparent magnitude will be different.

Another object which will diversify the firmanent of those who are on one of the sides of the rings is the opposite portions of the rings themselves. These will appear rising up from each side of the planet like broad luminous arches, each of them somewhat less than

a quadrant, and will fill a very large portion of the sky, so that the inhabitants of the rings will behold a portion of their own habitation forming a very conspicuous part of their firmament, and, at first view may imagine that it forms a celestial object with which they have no immediate connection. Were they to journey to the opposite side of the ring they would see the habitation they had left suspended in the firmament without being aware that the place they had left forms part of the phenomena they behold. As the rings rotate round the planet, and the planet rotates round its axis, the different parts of the surface of the planet will present a different aspect, and its variety of scenery will be successively presented to the view. The eclipses of the sun and of the satellites by the interposition of the body of Saturn, and of the opposite sides of the rings, will produce a variety of striking phenomena, which will be diversified almost every hour.

From the dark sides of the rings which are turned away from the sun for fifteen years a great variety of interesting phenomena will likewise be presented; and during this period the aspect of the firmament will most probably be very varied and striking. This half of the rings will not be in total darkness during the absence of the sun, for some of the eight satellites will always be shining upon it; sometimes three, sometimes four, and sometimes all the eight in one bright assemblage. It is probable too that Saturn, like a large, slender crescent, will occasionally diffuse a mild light, and in the occasional absence of these, the fixed stars will display their radiance in the heavens, which will be the principal opportunity afforded the astronomers of the rings for studying and contemplating those remote luminaries. Those who occupy the exterior rings will behold the interior rings and the opposite segments of their own like vast arches in the heavens; and although only 2,500 miles intervene between the two bright rings, that space is doubtless as impassable as the space which intervenes between us and the moon. The celestial scenery as viewed from these rings will afford a grand and diversified field for telescopic observations, surpassing in variety and sublimity whatever is beheld in any other region of the solar system, by which some of the objects could be contemplated, as if they were placed within the distance of forty or fifty miles.

Thus the planet itself, with all the moving bodies connected with it, presents to the mind a scene of surpassing grandeur and sublimity. Let us suppose ourselves stationed within a few thousand miles of this system; from such a position the globe of Saturn, the rings and moon would appear to fill the greater portion of the visible heavens. Let us conceive this planet nearly a thousand times larger

than the earth, moving through space at the rate of over 20,000 miles an hour, accompanied by his stupendous rings 500,000 miles in circumference; and these rings revolving round the planet, with a velocity of nine hundred miles every minute, and eight other spacious globes, while in their rapid courses at different distances round the planet and his rings; let us endeavor to stretch our imagination to the utmost to represent to ourselves this scene as near as possible to the reality. Supposing ourselves spectators, how grand and terrific and almost overwhelming would be the amazing spectacle! Amidst the emotions which such a sight would excite in us we would exclaim: "Who can understand the operations of the Lord? Great is the Lord; great in his power; and his wisdom is infinite! His power is irresistible; his wisdom is unsearchable; and his agency, as his presence, pervades immensity!

The Planet Uranus.

Of the planets which have been discovered beyond the orbit of Saturn, comparatively little is known, owing to their great distance from us. The nearest of these, Uranus, is only faintly visible to the naked eye. It was discovered on March 13th, 1781, by Sir W. Herschel, though it was some few months afterwards before its planetary nature was recognized. While engaged in examining some small stars, he was struck with the appearance of one in particular, and on applying higher powers he found that it seemed to increase in size and presented a faint disc; it also exhibited a proper motion. Herschel accordingly considered it to be a comet, and announced its discovery as such, but it was soon found to be impossible to assign to the wanderer a parabolic orbit, which would account for its movements, and it was then ascertained to be a planet moving in an elliptical orbit at a mean distance from the sun of 1,753,851,000 miles. Some time was spent in deciding on a name for the stranger. The name of the discoverer was suggested. He himself, however, proposed to call it *Georgium Sidus*, the Georgian Star, out of respect to his patron, George III.; but as the names of other planets were derived from the Heathen Mythology, it was finally decided to select a name from this source for it, and Uranus was at length fixed upon. The other names will, however, be occasionally met with in astronomical writings. The diameter of Uranus is a trifle more than 33,000 miles; consequently its circumference is over 103,672 miles; and its superficial area more than 3,421,176,000 square miles, or about 17½ times the land and water area of our globe. Its mass of matter is estimated at about twenty times greater as to bulk than what is contained in

Mercury, Venus, the Earth, the Moon, Mars, Juno, Vesta, Ceres, and Pallas; and, if the mass of its system of satellites were counted in, it would be much greater. Its distance from the sun is about double that of Saturn; and to reach the nearest point of its orbit, a cannon ball flying from the earth thitherward with a velocity of 500 miles an hour would require a period of 389 years; and a steam carriage travelling at the rate of 20 miles an hour without intermission would require more than 9,730 years before it could reach the planet Uranus. The period of this planet's rotation on its axis is as yet unknown; its great distance from the earth preventing us from observing any spots or changes on its surface by which this might be determined. La Place concludes from physical considerations that it rotates about an axis very little inclined to the ecliptic; and that the time of its diurnal rotation cannot be much less than that of Jupiter and Saturn. It moves in its orbit round the sun in a little more than 84 of our years, its period being 30,686.82 days, at the rate of 15,000 miles an hour.

One remarkable feature in connection with this member of our system is the great inclination of its equator to the plane of its orbit, the poles being very nearly in the plane. As a result of this the sun is at different times vertical to nearly all parts of the planet's surface. Its orbit is inclined to the ecliptic at an angle of 46′26″ so that it is never much more than $\frac{3}{4}$ths of a degree from the ecliptic. This inclination is less than that of any of the other planetary orbits. The eccentricity of its orbit is 85,000,000 of miles, which is about the $\frac{1}{12}$nd part of its diameter. Its mean apparent diameter as seen from the earth is about 4″. The quantity of light this planet receives from the sun is 360 times less than what the earth receives; for the quantity of light received on any planet is inversely proportional to the square of its distance from the sun. Uranus is about 19 times the distance of the earth from the sun, and the square of 19 is 361, which is the number of times the quantity of light which he receives will be less than what we receive. But this quantity of light is estimated as equal to what we should have were 248 full moons all continually shining on our globe. If the atmosphere of that planet be as dense as ours, and its surface considerably rough, it will enjoy a good share of illumination. The sensible heat may not entirely depend upon the distance of a planetary body from the sun, but partly upon the nature of its atmosphere and the substances on its surface on which the rays of light and heat fall. Light and heat seem only to be required where there are sensitive and intelligent beings existing, and we may rest assured that in all the regions of the universe the nature and constitution of the inhabitants are adapted to their respective habitations. This

immense globe is doubtless replenished with large numbers of sensitive and intelligent creatures.

Several satellites have been discovered revolving round Uranus; but the number that accompany that planet do not appear to be definitely ascertained. Sir W. Herschel states that he discovered six, and two within these have been discovered by Lassell and Struve, so that the number is by many astronomers set down at eight, and their periods of rotation vary from $2\frac{1}{2}$ to $10\frac{1}{2}$ days. Lassell, however, expresses his belief that the total number yet discovered is only four. They all, instead of revolving, as the other planets do, from west to east, have their orbits nearly at right angles to the ecliptic, and move in a direction from east to west. It is reasonable to suppose, however, considering the immense distance and the probable small size (their diameters are not yet ascertained) of these bodies, that the acutest astronomers may possibly make mistakes in their observations of them, for they are almost all faint objects, difficult to be observed even with our best telescopes, and therefore future observations may possibly reveal something different as to the motions of these satellites. If it be confirmed that this apparent anomaly do exist, as we may say, almost at the confines of the solar system, it will indicate that in other systems different states of things exist as to the planets and their satellites besides what we experience in the system to which we belong.

We append a list of the satellites of Uranus. Those given here are numbered 1, 2, 4, 6, in the fuller list:

	Mean Distance from Planet.	Siderial Period.	Diameter.
1st	123,000 miles.	2 days, 12 hours, 28 min.	?
2d	171,000 "	4 " 3 " 27 "	?
3d	281,000 "	8 " 16 " 25 "	?
4th	376,000 "	13 " 11 " 6 "	?

The satellites of Uranus seldom are eclipsed; but as the plane in which they move must pass twice in the year through the sun, there may be eclipses of them at these times; but they can be perceived only when the planet is near its opposition. Some eclipses were seen in 1799 and 1818, when the satellites appeared to *ascend through the shadow of the planet in a direction almost perpendicular to the plane of its orbit*. All these satellites, with perhaps several other that revolve about this planet, will not only shed a flood of light on its surface, but exhibit a splendid and variegated appearance in its nocturnal firmament.

The Heavens as seen from Uranus.

The only one of the planets which will be distinctly visible from Uranus is Saturn, which will appear occasionally as a morning and an evening star, and will appear nearly of the same size as to us; but as it will always be seen near the sun, it will only be visible at certain periods or intervals of fifteen years, and will appear about as near to the sun as Mercury does when seen from the earth. It is not probable that Jupiter will be at all visible to this planet on account of its proximity to the sun. If ever it be visible it will only be for a very short time at intervals of six or eight years. The most splendid and interesting phenomena in the firmament of this planet will be produced by the phases, eclipses, revolutions, and various aspects of his moons. Four of these are given in our list, but it is highly probable that several others are connected with this planet.

Let us suppose, then, one satellite presenting a surface in the sky eight or ten times larger than our moon; a second six times as large; a third four times as large; a fourth twice as large; a fifth about the same size as the moon; a sixth somewhat smaller; and, perhaps, two or three others of different apparent magnitudes; let us suppose two or three of these, of different phases, moving along the concave of the sky; at one time four or five of them displayed through the firmament; one rising above the horizon, one setting, one on the meridian, one toward the north, and another toward the south; let us suppose them at another time all shining in the firmament with full enlightened hemispheres, or with different phases; and we shall have a faint idea of the beauty, variety, and sublimity of the heavens of Uranus. What is deficient in respect to the invisibility of the other planets is amply compensated by his assemblage of satellites, which diversify and illuminate its nocturnal sky.

The sun from this planet has a diameter of only $5''\ 16'''$; notwithstanding all this, the light it receives is considerable, as is evident from the brightness it exhibits when viewed with a telescope in the night time, and likewise from the well-known phenomena, that when the sun is eclipsed to us, so as only to have the $\frac{1}{44}$th part of its disc left uncovered by the moon, the diminution of light is not very sensible; and it has been frequently noticed that at the end of the darkness in total eclipses, when the sun's western limb begins to be visible, and seems no bigger than a thread of silver wire, the increase of light is so considerable, and so quickly illuminates all surrounding objects, as strikes the spectator with surprise. The solar light to Uranus is equal to that of 250 of our full moon.

The scenery of the heavens from the satellites of Uranus will

bear a striking analogy to that observed from the moons of Jupiter; but if there are six or a greater number of satellites connected with this planet, the firmament of each of its satellites will be more diversified than that of any of the satellites of Jupiter. From its first satellite the globe of Uranus will appear nine hundred and eighty times larger than the moon appears to us, and consequently will appear a very grand and magnificent object in its sky, while all the other moons in different phases will serve both to illuminate its surface, and to diversify the scenery of its firmament. To the second satellite, Uranus will appear five hundred and seven times as large as the moon to us; to the third, one hundred and eighty-seven times, and to the fourth one hundred and nine times. Each of these satellites will have its own peculiar celestial phenomena; but after what has been said in the preceding descriptions, and especially with reference to the celestial phenomena from the satellites of Jupiter, it is unnecessary to enter into details with respect to these. These satellites, however, probably move in contrary directions to those of Jupiter and the others; and, therefore, their celestial phenomena will be exhibited differently.

The Planet Neptune.

The history or the discovery of this planet is one of the most remarkable pages in the whole history of astronomy. Uranus, as we have seen, was discovered by accident, and some time elapsed before it was admitted to be a planet. With Neptune the case was very different. About half a century ago, M. Bouvard attempted to calculate accurately the movements of Uranus, but found unexpected irregularities, which he could not then account for. If the planet alone were revolving round the sun, its place could be easily assigned; but each of the other planets exerts an influence upon it, and these influences are continually varying. All these, however were allowed for, and yet there remained some disturbing cause which drew it out of its assigned place. Accordingly, in the beginning of 1843, Mr. Adams began to investigate the matter for the purpose of ascertaining the place which the exterior planet (should there be one) ought to occupy, and its elements. After nearly two years of diligent enquiry, he announced to the Professor of Astronomy at Greenwich Observatory the results of his investigations. Nothing further was done at the time; but soon after, Le Verrier, a French astronomer, independently applied himself to the same enquiry, and obtained results closely resembling those arrived at by Mr. Adams. Upon this a search in the locality indicated was resolved upon, but some

time was occupied in commencing it, as the star maps of that part of the zodiac were only imperfect.

Le Verrier then published a revised computation, and on September 18th, 1846, M. Galle, of Berlin, directed his telescope to the spot thus indicated by Adams and Le Verrier. A small star, not mentioned on the maps, was at once seen, and on careful watching proved to be the suspected planet, which had thus by purely theoretical computation had its place marked out among the stars. The problem thus solved almost simultaneously by two different astronomers in England and France was one of the greatest ever solved by the human mind, and reflects honor on both astronomers.

Of the planet itself not much can be said. It revolves round the sun at the mean distance of 2,746,271,000 miles, which is considerably less than that which would be assigned to it by Bode's law. It completes its journey round the sun in 60,126.7 days, or nearly 164¾ years. The eccentricity of its orbit is but small. Its diameter is ascertained to be about 36,620 miles; its circumference is, therefore, 115,045 miles, and its superficial contents 4,212,947,900 square miles, or about 21½ times the area of our terraqueous globe.

One satellite has been discovered by Lassel revolving round Neptune in a period of 5 days, 21 hours, 8 minutes, at a distance from the primary of 220,000 miles, and, like those of Uranus, in a direction from east to west. It is evident this satellite must be a body of very considerable size, otherwise it could not be visible at such an immense distance. It is probably much larger that any of the satellites of Jupiter and Saturn, and may far exceed our globe in magnitude. It is not altogether improbable that some of these far distant planets may be surrounded with a ring similar or analogous to that of Saturn.

The discovery of this remote planet constitutes a new era in the progress of celestial science, and evinces the certainty and uniformity of these physical laws by which the bodies of the planetary system are directed. The law enunciated by Newton, that "every particle of matter in the universe attracts every other particle with a force proportional to the quantity of matter in each, and decreasing inversely as the squares of their distances," has obtained here a new confirmation. This law is thus shown to be extensive in its influence, reaching far beyond what was once considered the boundaries of the solar system, and exerting its energies, on every particle of matter throughout the boundless universe.

The first step in the exhibition of that law was the discovery made by Newton that the earth attracts the moon. The principle was also found to explain the revolutions of the planets round the

sun; besides it was found that the revolutions of the secondary planets, or moons, round their primaries, were owing to the same cause. The application of this law also explained certain anomalies in the motions of the moon and planets which were otherwise difficult to account for. A great inequality in the movements of Jupiter and Saturn, which was long unaccounted for, was at length traced to their reciprocal action on one another by the operation of this law. The effects of the attraction of planets that could be observed, and whose names were known, were thereby calculated. In respect to Neptune, the mean distance and position of the planet, its mass, and the form of its orbit, were all unknown. But by its observed effects they were all so well determined as to guide the observer almost to the very point of the heavens where it was first descried. This fact stands almost alone in the records of astronomy; there has been no discovery of the same kind before in its annals, and it may lead to other discoveries of a similar kind. Astronomers have now no reason to conclude that they have yet explored the utmost b undaries of the solar system, a body of so great magnitude having been ascertained to exist, and prosecute its journey round the sun at over three times the distance of Saturn. The observation of future years may bring to view many other orbs which have hitherto existed concealed from view in these distant regions, and in other regions also, of our system. Thus, the Creator crowns with success the exertions of human genius in the investigation of His dominions by opening up to our view a more expansive prospect of His boundless and eternal empire.

If we except the satellites of Uranus and Neptune, all the bodies of the solar system, so far as discovered, revolve in the same direction round the sun, and all move within a narrow belt. The planets, however, cannot strictly be said to revolve round the sun, but the sun and the planets revolve about the centre of gravity of the system, which, owing to the preponderating bulk of the sun, lies not far from his own centre. Some idea of the immense magnitude of the sun, may be gathered from the fact that if he were a hollow shell, and the earth placed at the centre, there would be sufficient room for the moon to revolve as she now does at 240,000 miles from the earth, and still there would be some 200,000 miles beyond the moon before the shell of the sun could be reached.

The Heavens as viewed from Neptune.

The only one of the known planets which will be distinctly visible from Neptune is Uranus, which is perceptible occasionally as a faintly appearing morning and evening star of rather less splendor

and magnitude than Mercury appears to us. It is seen most clearly at the periods of its greatest elongation, or at intervals of 42 years, and for a longer period than Saturn appears to Uranus; for while the greatest elongation of Saturn to Uranus is only a few degrees more than that of Mercury to the earth, the greatest distance at which Uranus will appear removed from the sun to Neptune will be fully that at which Venus is seen from the earth at the time of its greatest elongation.

It is very doubtful whether Saturn will be at all visible at Neptune, for at his greatest elongation he cannot be removed from the sun more than 14°, and although of a diameter more than double that of Uranus, and only about double the distance of Uranus from this planet, which would enable him to be seen if at any time his elongation were sufficiently great, yet being in such close proximity to the sun he is at all times inevitably immersed in his rays. Jupiter and all the other planets will never be seen from Neptune unless at times as black spots passing across the sun's disc, when perchance they may be suspected to be globes in transit or spots which pertain to the surface of that luminary. But these phenomena can never be observed by the unassisted sight, so small does the sun's disc appear to Neptune; but may *often* be observed by the help of such instruments as the best of our telescopes, all the other known planets being *inferior* to this. All these great bodies of our system, therefore, surrounded by their retinues of moons will be almost as much unknown at Neptune as if they did not exist, unless it be that their organs of vision there are much superior to ours and their astronomical instrustruments equal or superior, which would enable them to explore the vicinity of the sun and to closely inspect the planets, especially in transit.

It appears beyond doubt that this planet is attended by several moons, and some respectable astronomers have found reason to think it surrounded by a ring like or analogous to that of Saturn; and, therefore, the most interesting part of his celestial scenery will be produced by the members of his own system. It is not probable that the fixed stars will appear different either in lustre or magnitude than they do to us; but being ignorant of the direction of this planet's axis we cannot tell what are the positions of the different constellations from his different latitudes, or what particular stars will appear at his poles and his equator. The diameter of this planet's orbit, however, being of such immense extent—nearly five thousand five hundred millions of miles—will afford an excellent base line to the astronomers to discover the parallaxes and distances of the stars.

One or two moons have already been discovered and it appears reasonable that only distance prevents others from coming into view. These moons in order to be descried from the earth must be of considerable magnitude. Let us then suppose one moon presenting a surface in the sky a dozen of times as large as that of our full moon, another ten times as large, a third eight times, a fourth seven times as large, and a fifth, sixth, seventh, and eighth, of gradually smaller magnitudes. With all these let us imagine a ring like or analogous to that of Saturn revolving around the planet, within the orbits of all the moons or without those of some of them, and we have a celestial picture almost as sublime and grand as any we have yet contemplated. From the surface of the planet in its motions let us contemplate the motions of the ring as it revolves around it; let us conceive six or eight of these moons appearing at once in the heavens, of different apparent magnitudes and displaying different phases, some appearing as a crescent, some with a gibbous phase, some as a half moon and others as full moons; let us conceive one of these as rising above, another as descending below the horizon, one on the meridian, another approaching to it or departing from it; one north, another south, another east and another west; one entering into an eclipse, another emerging from it; one or two suffering occultations behind the body of the ring, and one or two emerging from their obscuration; let us conceive all these as continually varying their aspects, displaying different phases as in their nocturnal courses they move along the vault of heaven; the ring also varying its aspect during every revolution, besides the variety of scenery it displays during its rotation, considering it to rotate in like manner to that of Saturn; at one time and place, exhibiting a broad luminous arch, at another a narrow streak of light, again appearing as a dark belt encircling a quadrant of the sky, and at other times and places disappearing altogether; and all the varieties of celestial scenery will be different according to the position of the observer on planet, ring, or satellites,—to those on the moons and ring the great globe of Neptune being the most conspicuous object in the sky, filling a large portion of the firmament, appearing to the first satellite 398 times the size of our full moon, and gradually varying its phases and surface scenery, while performing its axial rotations; and to the other moons appearing of gradually decreasing magnitude; let us conceive even this limited representation and we have a picture presented to the mind of extraordinary sublimity and grandeur.

It is true the quantity of light this system receives is but small compared with that the earth receives or even the systems of Saturn and Uranus. This is only the $\frac{1}{840}$th of what the earth receives; for Neptune is from the sun about twenty-nine times the distance of the

earth from that luminary and the quantity of light the planets receive is in inverse proportion to the squares of their distances from the sun. But supposing the planet's media, its atmosphere and surface, to be as well adapted for reflecting the solar light as the earth's is, and supposing it to be attended with a good number of satellites and perhaps a ring, whose media are equally well fitted for reflecting and refracting the light, and supposing the organs and instruments of vision of the inhabitants to be as good as or better than ours, then there will be a sufficient degree of light for their every purpose in that far distant world, for the quantity is greatly multiplied by reflection and refraction from the media of the planet itself and from those of its attendants. There is, also, we may believe, a sufficient degree of heat there; for the habitation doubtless is in each case adapted to the species which inhabit it. The sun from Neptune has a diameter of only 2″17‴, but owing to his self-luminosity he appears as large as Venus does to us when that planet appears largest, and affords an incomparably greater quantity of light, his light to Neptune being equal to that of 107 of our full moons were they continually shining on that globe.

We may remark that in the preceding descriptions the apparent magnitudes of Jupiter, Saturn, Uranus, and Neptune, as seen from their satellites, and apparent magnitudes of the satellites as seen from their primaries, and from each other, are only near approximations to the truth, so as to convey a general idea of the scenes presented in their nocturnal firmaments; perfect accuracy not being absolutely required in such descriptions. The variety of celestial phenomena in the firmaments of these bodies is much greater than we have described. Were we to enter into minute details in relation to such phenomena it would require a volume of considerable size to contain their varieties. And were we to consider all the varieties of scenery which characterize *the surfaces* of all these distant worlds, since the colors exhibited on all of them are the same as, or similar to, those exhibited on our globe, we should have a voluminous work.

The satellites of Jupiter, Saturn, Uranus, and Neptune, of which we have endeavored to give a brief description in the preceding pages, form, as it were, so many planetary systems in connection with the grand system of the sun. The same laws of motion and gravitation which apply to the primary planets are also applicable to the secondary planets or moons. The squares of the periodical times are in proportion to the cubes of their mean distances from their primaries. They are subject to the attraction of the primaries as all the primary planets are attracted by the sun; and as the sun in all probability with his whole system moves round some reciprocal centre of

gravity, so the satellites move round their respective primaries, partly by the attractive influence of these planets, and partly by that of the great central luminary. Each of these secondary systems is far more grand and extensive than the whole planetary system was conceived to be in ancient times. Even the system of Saturn, including its rings and satellites, contains a mass of matter much more than a thousand times larger than the earth and moon. The system of Jupiter comprises a mass of matter nearly fifteen hundred times as great as these two bodies ; and even that of Uranus or Neptune is eighty or a hundred times the dimensions of our terraqueous globe.

The Attraction of Gravitation explained.

As the sun is called the centre of light and heat to all the bodies revolving around it, so it may also be called the centre of attraction ; and the influences of light and heat are invariably distributed to all the planets in the same ratio as the power of attraction, which keeps them revolving in their orbits, that is, in the inverse ratio of the squares of their distances ; or, to express it more clearly, the power of the attraction, the light and heat of the sun on one planet is to that on another planet as the square of the distance of the latter from the sun is to the square of the distance of the former. But as some of our readers may not understand this from the bare statement of the fact, we will endeavor to simplify the law of attraction by a familiar illustration.

Suppose two persons, A and B, sitting at the same distance from the fire, both in front of it, at least the one as much as the other; it is plain they will both feel the same degree of heat, for whatever reason may be given to show that A receives more heat than B, the same reason might be assigned to show that B receives more heat than A ; therefore they must both receive the same amount of heat each. Now, suppose that B removes to double the distance from the fire that he was at when alongside of A, and A remains in the same place; it might then be supposed that B would receive *only half* as much heat as he did before; or that A would now enjoy double the heat which B would receive in his new position. Such, however, is not the case, for the degree of heat does not diminish at the same rate as the distance increases, as one might expect at first thought; but it diminishes at a much greater rate, and the question is, how much greater? Now well conducted and careful experiments in Natural Philosophy have proved that the heat received at the distance of 2, 3, 4, 5, 6, 7, 8, 9, etc., feet is not $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \frac{1}{6}, \frac{1}{7}, \frac{1}{8}, \frac{1}{9}$, etc., of the heat received at one foot, but it is $\frac{1}{4}, \frac{1}{9}, \frac{1}{16}, \frac{1}{25}, \frac{1}{36}, \frac{1}{49}, \frac{1}{64}, \frac{1}{81}$th, etc., of the heat received at one foot. Thus B will receive at *double* the

same distance of A only one-fourth of the heat which A receives; at triple the distance only one-ninth; at four times the distance one-sixteenth, etc. The law of expansive progression is then as follows: Let the heat received at the distance of one foot be denoted by 1, then the heat received at the distance of 2 feet will be denoted by $\frac{1}{4}$, or 1 divided by 2 times 2; the heat received at the distance of 3 feet will be $\frac{1}{9}$, or 1 divided by 3 times 3; the heat received at the distance of 4 feet will be $\frac{1}{16}$ or 1 divided by 4 times 4, and so on. Now dividing 1 by any number gives a result which mathematically is called the *reciprocal* or *inverse* of that number; and multiplying any number by itself gives a result which is likewise called the *square* of that number. But the numbers 1, 4, 9, 16, 25, 36, 49, 64, 81, etc., are the squares of the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, etc., because they are obtained by multiplying the latter numbers each by itself, and the fractions $\frac{1}{4}, \frac{1}{9}, \frac{1}{16}, \frac{1}{25}, \frac{1}{36}, \frac{1}{49}, \frac{1}{64}, \frac{1}{81}$, etc., are called the reciprocals, or inverses of the squares; and *ratio* means the rate at which anything increases or decreases; hence the force of the heat or amount of heat received from a common fire is in the ratio of the *inverses* of the *squares* of the distances; or, more shortly, in the inverse ratio of the squares of the distances. This may be explained in still another way. Suppose A to be placed at two feet distance from the fire, and B at 3 feet distance; then B will receive less heat than A; not in the ratio of 2 to 3, the number which represents their distances, but in the ratio of 2 times 2 to 3 times 3, that is, of 4 to 9 in other words, as 4 is received $2\frac{1}{4}$ times in 9, so A will receive $2\frac{1}{4}$ times more heat than B; and this is what is really meant by the phrase *the inverse ratio of the squares of the distances*

Thus, having explained the law of the influence of heat on two bodies, or on any number of bodies at different distances from the source of heat in the case of a common fire, we again observe that the law is equally true of the influence of light and of the influence of attraction, upon bodies at different distances from the source of light and of attraction. Thus, we feel and experience that the sun is the great source of light and of heat to this world in which we live; and astronomy teaches us that it is the great centre of attraction; that power which operates upon the earth and the other planets, and causes them to revolve in elliptical orbits around that luminary as the centre of their motions. This power of the sun arises from his great preponderance in weight, for, as stated above, every particle of matter in the universe attracts every other particle with a force proportioned to the amount of matter they contain.* This law, which

* The magnetic attractions of the earth, which appear to make an exception to this statement, are doubtless equilibrated within the earth itself, and by the reciprocal magnetic attractions of co-existing globes.

by long and accurate observation is known to be true, at once conveys to the mind the idea of permanent equilibrium in the universe.

KEPLER AND HIS LAWS.

From the earliest ages of astronomy up to the time of Kepler the planets were reckoned to be only six in number; and this number being mathematically perfect, that is, equal to the sum of all its factors 1, 2, 3, it was imagined that no more planets existed, or might be expected to be found. Kepler, however, earnestly enquired why they should be only six in number; and from his long and careful observations on the motions of the planets deduced certain laws, which are considered as lying at the foundations of astronomical science, which have prepared the way for many new discoveries, and did away with many old and incorrect theories and ideas. This famous astronomer was a pupil of Tycho Brahe, who lived in the latter part of the 16th century. He acquired from his preceptor the habit of accurate observation, and was far more successful than he in the theories which he formed. He was naturally possessed of a quick and lively imagination. He commenced with careful observations, and then formed his theories in accordance with facts; and, proceeding thus, he soon made many and important discoveries. The task to which he devoted his time and energies was to discover the nature of the path described by the planets. Starting with the hypothesis of the sun being in the centre of the system, he began to watch attentively their places, and to simplify matters he confined himself at first to observing the motions of the planet Mars. He calculated the place it should occupy according to the theory of its revolving in a circular orbit, and soon found that the place it really occupied in the sky differed considerably from that assigned to it. This theory was thus at once shown to be incorrect, and he had, therefore, to form a new one by the combination of several circular movements; and again he carefully calculated its position till, just as he seemed to be on the verge of success, the planet once more wandered from the path which he had assigned to it; and once more he had to commence his observations anew from the beginning. In this way he continued to try one hypothesis after another, submitting each to the test of most careful observation, till at length no fewer than nineteen different theories had been proposed, and the movements of the planets compared with those which were calculated by those theories; and still the true solution of the problem remained undiscovered. His perseverance, however, never failed, and he toiled on, though eight long years had been occupied in the task. One important negative

result he had, however, arrived at, and this was that whatever was the nature of the curve the planets described, it was not a circle or a combination of circles. This was one great step toward the solution of the problem. From the earliest ages it had been assumed that, as the circle seemed the perfection of form, all the heavenly bodies must move in circles; but Kepler now untrammelled himself of this theory and then applied himself afresh to the task. In looking at the greatness of his work we must remember that the difficulty is much increased by the fact that our station of observation is itself in rapid motion. Could we view the planets from the sun we should easily see their courses, but as we cannot do this allowance has to be made in every calculation for the motion of our standpoint; and this motion was not then clearly understood.

Having discarded the theory of motion in circles, Kepler now proceeded to try other forms, testing them as before; and the first that occurred to him was the ellipse. He accordingly went through the same series of calculations again, and this time the motion of the planet was found to correspond with that assigned to it by the theory. The great problem of the heavens was now solved, and the joy with which Kepler enunciated the first of the laws which bear his name can scarcely be imagined. This law may be stated as follows : 1. " That the planets revolve in elliptical orbits, situated in planes passing through the centre of the sun ; the sun itself being in one of the foci of the ellipse." As to the *foci :* In every circle there is a point, called the centre, such that all straight lines drawn from it to the circumference are equal. No such point is to be found in an ellipse ; but in the longest diameter, or the major axis as it is called, two points can be found so situated, that if straight lines be drawn from one to any point in the circumference, and thence to the other, the sum of these lines will always be equal. These points are called the foci. Thus, in the figure, A B is the longest diameter, major axis, C D the shortest diameter, minor axis; and F and F′ are the focal points.

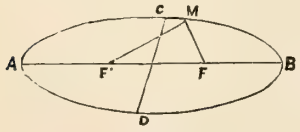


Fig. 121.

A second law enunciated by Kepler is : 2. " That the radius vector drawn from the centre of the planet to the centre of the sun passes over equal areas in equal times in every part of the orbit;" that is, whether the planet be in its aphelion or farthest from the sun, in its perihelion or nearest the sun, or at its mean distance from the sun. Thus, when in the month of December the earth is nearest the sun it is moving much faster than it moves in summer, when it is farthest from the sun ; for the radius vector describes equal areas in equal times ; and hence we find that the

farther the planets are removed from the sun the slower they move, although their radii vectores may describe equal areas with those of the planets that are situated nearer the sun, and moving faster. Another law Kepler enunciated is as follows: 3d. "That the squares of the periodic times of the planets, that is, of the times of a complete revolution in their orbits, are proportional to the cubes of their mean distances from the sun;" or, in other words, that the square of the periodic time of one planet is to the square of the periodic time of another planet, as the cube of the mean distance of the former from the sun is to the cube of the mean distance of the latter from it. Thus, if we know the distance of a planet we can calculate approximately its time of revolution round the sun; and on the other hand, if we know its periodic time we can ascertain its distance. As an illustration, the distances and periods of Venus and the Earth may be taken, which may be set down in round numbers as follows:

	Period.	Distance from the sun.	The proportion between the
Venus	224 days,	68,000,000	periods here is $\frac{2}{3}\frac{2}{6}\frac{4}{5}$;
Earth	365 "	95,000,000	And the proportion between the distance $\frac{6}{9}\frac{8}{5}$.

If now we take the square of the former quantity, we shall find it to be nearly equal to the cube of the latter.* It will be noticed that the numbers here given for the purpose of illustration are merely approximations. These laws, deduced and proposed by Kepler, at the close of the sixteenth and in the beginning of the seventeenth century, and afterwards mathematically demonstrated by Sir Isaac Newton, are, together with Newton's law of gravitation, accounted the fundamental and invariable laws of the science of astronomy. It will, of course, be observed in what sense they are to be understood as laws; in the common acceptation of the term, law has reference to man, and to the moral world; but neither Kepler nor Newton made these laws; they are simply their deductions, from long observation and experiment, as to how nature is and acts universally.

SIR ISAAC NEWTON AND HIS DISCOVERIES.

The name of Newton stands before Kepler as the discoverer of the law upon which all those of Kepler depend. Kepler seems to have suspected that some such law did exist, but failed to discover it. He seems likewise to have been aware of the fact that the tides were, in some way, influenced by the moon, and that the other heavenly

* The process is as follows by the "Rule of Three:"—

$365^2 : 224^2 : : 95^3$: Distance cubed of Venus from the Sun.

133225: 50176 : : 857375×50176 $\sqrt[3]{322909.7.}$ Extracting the cube root we obtain 68 millions with a small fraction.

133225

bodies were in some way connected so as to influence each other; but he did not discover what this mysterious bond of union was, and, therefore, it was with him a mere conjecture. But Newton applied himself strenuously to clear up this difficulty, and accomplished his task nobly. This great man was born in 1642, the same year in which Galileo died. It is said that his attention was first drawn to the subject of gravitation by observing an apple fall from a tree one day while sitting in a summer-house in his garden. There was nothing remarkable in such a circumstance, for it was an event which might be seen every day. But it set him thinking, and he began to enquire why the apple should fall downwards or towards the ground instead of upwards, or to one side. To most men such a question might have appeared vain and frivolous; to him, however, it seemed an important event towards very great results; and such in reality it proved to be. After careful enquiry he found that all bodies are attracted towards the centre of the earth, and this attraction he called gravitation. The question then arose to him, whether this action was confined to the surface of the earth, or whether distant bodies were attracted in a similar way. The intensity of this force he also believed to diminish with the square of the distance; but the difficulty presented itself, how this was to be tested. Even if a body could have been raised several miles from the earth's surface, this distance would have been so trifling when compared with the earth's radius (4000 miles) that no appreciable difference would have been manifested.

No way, therefore, appeared to him practicable of putting this theory to the test, till at last the idea occurred to him, why he should not use the moon as the falling body, and ascertain the distance through which it falls in any given time, say, for instance, one minute. This idea, at first, appears absurd, but the annexed figure will enable our reader to understand it. It is known that the moon revolves round the earth in an orbit, almost circular, as G B D. Now, suppose the moon to be at D, its tendency at the moment is to move along in the tangent line D C, and in this direction it would go on moving did not some other force deflect it out of that course: for every body tends to continue, in the state in which it is if not acted upon by forces external to itself; if it is at rest it tends to remain at rest; if in motion, to go on continuously, moving in a straight line. This force, which acted upon the moon so as to draw it out of that straight line and make it describe a curve, Newton sup-

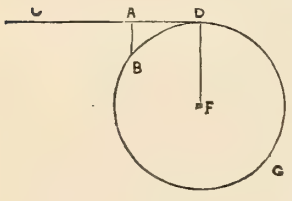


Fig. 122.

posed to be the attraction of the earth, and determined to calculate whether the amount it deviated from a straight line was such as would arise from the earth's attraction. When the moon has moved into the position B, it is easily seen that the distance it has deviated from its true path is equal to A B. He accordingly calculated what this distance would become after the lapse of one minute, that is, how far the moon would fall toward the earth in that time. He next computed the space through which a body removed to the distance of the moon ought to fall in the same period under the action of the earth's gravitation, and compared these results together. Though this calculation seems simple enough, it really occupied him for many years; and when at length he had completed it, he found a considerable resemblance between the amounts, but not a sufficiently close one to satisfy him, and he, therefore, laid the work aside for a time. After some time, however, he heard that a more accurate determination of the earth's diameter had been effected, and he accordingly repeated his calculations, substituting the new figures; and when at length he had completed his bewildering task, he found the result to agree most accurately. In order to fully satisfy himself of the accuracy of his theory, he went through the same calculations again in reference to some of the planets, and obtained like results; he then announced his general fundamental law before mentioned, that "every particle of matter in the universe attracts every other particle with a force proportioned to the quantity of matter in each, and decreasing inversely as the squares of their distances."

The motion of the planets is thus seen to be compounded of two, the one the motion which the body has in a straight line continuously, the other that arises from the attraction of the body around which they move.

Having attained this result, Newton set himself one more task; and that was, to ascertain, on mathematical principles, the curve in which the planets ought, in these conditions, to move. This was a calculation requiring the greatest amount of mathematical skill. Newton, however, possessed this, and set about the work, fully expecting that the curve must be an ellipse. But he found when the work was completed one which represented not only this, but any of the "Conic Sections," that is, of the curves which may be obtained by cutting a cone. These are, the *circle*, which is the curve obtained when the cone is cut parallel to the base; the *ellipse*, when it is cut a little inclined to this; the *parabola*, when the line passes parallel to one side of the cone; and the *hyperbola*, when it passes parallel to the axis. In any one of these curves, then, a planet may move, under the influence of these general laws; the satellites of Saturn

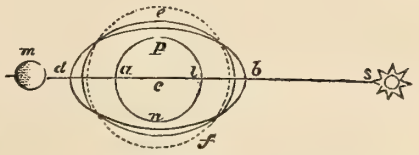
move in the first; the planets generally in the second, while the comets pursue their courses in parabolas and hyperbolas. This grand discovery of Newton seems to have completed our knowledge of the fundamental laws of motion of the worlds around us. By this we find that all their motions depend upon the two simple laws of *inertia* and *mutual attraction*, and that all their variations can be fully explained by these. And further, deeper investigations, show us that though all the stars are in ceaseless motion, yet their motions run through fixed and certain cycles, so that the very fluctuations of the heavenly bodies are certain indications of the stability of the universe.

Great as Newton's work was, he did not live to accomplish all his task. He discovered the mutual attraction of the heavenly bodies for one another, but left it to succeeding astronomers to calculate the effects this attraction would produce on the movements of each. That this was a work involving some difficulty will readily be seen if we consider the case of only a single planet. For illustration, let us take Venus; suppose now for a moment that only that planet and the sun existed, we could then easily mark out the exact position of the planet for every moment, if we knew its mean distance and the eccentricity of its orbit. Now add the earth to the system, and we shall find that a disturbing influence is at once introduced by its attraction. As Venus comes into that part of its orbit nearest the earth, it is attracted by the latter, and thus drawn out of its path; its motion is likewise accelerated as it approaches the earth, and retarded as it recedes from it; and the calculation of the amount of this disturbance is rendered more difficult by the fact that the earth is itself moving with a velocity different from that of Venus. When we have made due allowance for this disturbance we have to consider the effects produced by each of the other planets in turn, keeping in mind that they too are all in motion. We thus get some idea of the complication of the problem. It has, however, been completely worked out by modern astronomers, the due allowance being made for each of these disturbing forces; and this has been done with such wonderful accuracy that when certain minute irregularities were perceived in the motions of one of the planets (Uranus), which could not be accounted for by the influence of any of the known ones, it was conjectured that another planet must exist beyond it. Two astronomers accordingly, as we have seen, set about the calculation quite independently of each other, and determined the spot on which a planet should be, if it existed at all; and on turning a telescope to that spot the planet Neptune was discovered, though at no point of its orbit could it come within 130,000,000 miles of the planet whose

course it had been disturbing by its attraction. One fact may be particularly noticed as the result of these investigations; and that is, the absolute stability of the universal system, it being so equally balanced that all these perturbations exactly compensate for one another, and, after a cycle of prodigious length, all return to their original places.

THE TIDES.

The tides, as most readers know, are the alternate risings and fallings of the waters of the seas and oceans, and of bays, friths and rivers connected with them. This alternate rising and falling of the water is distinguished as the "flow" and "ebb" of the tides. They are caused by the attraction of the sun and moon upon the waters of the earth, but especially by that of the latter. Let us illustrate this by a figure. Suppose *a p l n* to be the earth, *c* its centre of gravity; let the dotted circle represent a mass of water covering the earth; let *m* be the moon in its orbit, and *s* the sun. Since the force of gravity diminishes, as the squares of the distances increase, it is evident that the waters will rise at *d* by the direct attraction of the moon *m*, and will rise at *b* by the centre of gravity *c* being drawn away from it, and leaving the waters on the opposite regions of the earth from the moon to accumulate in like manner in order to maintain equilibrium. Of course when the sun is on the side *b* of the earth its attraction tends to elevate it still more. It is evident, the quantity of water remaining the same, that a rise cannot take place at *b* and *d* without the parts at *e* and *f* being at the same time depressed. In this situation the waters of the earth may be considered in somewhat of an oval form. Were the earth and moon without motion, and the earth covered all over with water, the attraction of the moon would rise it up in a heap in that part of the ocean to which the moon would in such a case be vertical; but by rotation of the earth on its axis each part of its surface to which the moon is vertical is presented twice in a little more than a day to the attraction of the moon; and thus are produced two floods and two ebbs. If the moon were stationary, there would be two tides in one day; but because that body is proceeding every day more than 12° in her orbit from west to east, the earth must make more then one rotation on its axis before the same meridian comes again into conjunction



with the moon; and hence two tides take place in about 24 hours and fifty minutes. In the position of the earth and moon, as given in the figure, the waters are raised at *d* by the direct attraction of the moon, and a tide is accordingly produced; but when by the earth's rotation *a* comes, in twelve hours afterwards, into the position of *l*, another tide is occasioned by the receding of the waters there from the centre. In those parts of the earth to which the moon is vertical the tides rise highest; in all other parts, the effect is less, because the force of the attraction acts in a direction more oblique. You will readily understand that the tides are dependent upon fixed and determinate laws which are known; for if you refer to an Ephemeris, or an Almanac of a certain kind, you will see that the exact time of high water at certain places, say at London Bridge, the port of New York, New Orleans, or Canton, or any other place that may be mentioned in this connection, on the morning and afternoon of every day in the year, is set down.

Those men who are accustomed to work in the harbors, and along the coasts, although they are generally ignorant of the causes which produce the tides, yet know by experience that the time of high water differs on each day about three quarters of an hour, or a little more or less; and, therefore, if it be high water to-day at six o'clock, they will at a guess promptly tell you that to-morrow the water will not be up till a quarter to seven.

The attraction of the sun, owing to the immense distance at which he is placed from the earth, produces but a small effect in comparison with that produced by the attraction of the moon. Sir Isaac Newton computed that the attractive force of the moon raised the waters in the ocean ten feet, and that of the sun raised it only two feet. When the moon is in her first and last quarters, the attraction of one of these bodies raises the water, while that of the other depresses it, and in order to learn the height to which the water now rises, the attractive force of the sun has to be *subtracted* from that of the moon; these tides consequently are the lowest, and are called *Neap-tides*. The tides which happen at new or full moon, owing to the direct attraction of the sun and moon, are highest, and are called *Spring-tides*. The height of the tides at these times is found by *adding together* the attractions of the sun and moon. It is evident that at new moon the sun and moon attract the earth on the same side, and that the attractive force of the sun has to be added to that of the moon in order to find the height to which the waters now rise; and the waters receding from the centre to the side of the earth opposite to the sun and moon, has to heap up there equally in order that the equilibrium of the earth be maintained. And at full moon the powerful attrac-

tion of the moon draws the water towards itself on the side next to it; in consequence of which, and to maintain equilibrium, the water accumulates equally on the opposite side of the earth. The sun now exerting his attraction on this latter side increases the height of the water about one-fifth; and, of course, an equal recession of the waters from the central regions of the earth have to take place towards the side next the moon, in order to counterbalance and to have the height of the waters on the opposite sides of the earth the same, or, at least so that there will be equilibrium. Consequently, at the full moon, as well as at the new, the height to which the tides rise is found by adding together the attractive forces of the sun and moon.

The tides rise higher at some times than at others, owing to the fact that the moon revolves round the earth in an elliptical orbit, or an orbit which is slightly elliptical, and, therefore, approaches nearer the earth in some parts of her course than in others. When she is nearest, the attraction is strongest, and, therefore, the tides rise highest; and when she is farthest from the earth the attraction is the least, and the tides are lowest. They rise also to different heights at different places; in the Mediterranean and Black Sea the tides are scarcely perceptible. At the mouth of the Indus the water rises about 30 feet. The tides are remarkably high on the coasts of Malay, in the Straits of Sunda, in the Red Sea, along the coasts of China, Japan, and in the Bay of Fundy, etc. In general the tides rise highest and with greatest force in places which are narrowest. When the sun and moon are both vertical to our equator, and the moon in *perigee*, then the tides are highest. Speaking strictly, however, these tides do not happen at the equinoxes, but a little before and after them; for in this, as in other cases, the actions do not produce the greatest effects when they are at the strongest, but some time afterwards. Thus the hottest time of the day is not when the sun is on the meridian, but usually between one and four o'clock in the afternoon. Another circumstance is to be taken into account: the sun being nearer the earth in winter than in summer, it is of course nearer to it in October and February than in September and March; and therefore, all these things being considered, sufficient cause may be found why the highest tides happen a little before *vernal* and a little after the *autumnal* equinoxes. The moon's attraction having more effect upon the tides than that of the sun, their height varies with the distance of the moon from the earth; and as they are highest when she is in *perigee*, or nearest the earth, so they are lowest when she is in *apogee*, or farthest from the earth. All these effects are, however, known, and their causes accounted for; and the times of the tides and the heights to which they rise at

certain places are calculated long before, so that all may know these facts.

It is plain from what has been said on this subject, that the phenomena of the tides depend entirely upon two counteracting principles,—that of the attraction of the sun and moon disturbing the waters, displacing the centre of gravity, and destroying the equilibrium of the globe of the earth—and the tendency of the waters themselves to maintain equilibrium about their proper centre of gravity.* All these effects are produced by His agency who is everywhere present, and in whom we live and move.

ON COMETS.

The planets and their satellites were for some time considered to be the only proper members of our system. This view, however, has been found to be erroneous, as many bodies called comets have had their orbits calculated, and been found to revolve round the sun in regular periods. Comets have from the earliest ages of their discovery attracted a large share of attention from their great size and brilliancy, as well as from the suddenness with which they appear and the rapidity with which they extend these long tails which usually distinguish them. These vast streams of light sometimes extend to the distance of eighty and a hundred millions of miles in length. In past ages and among most people they have been objects of superstitious dread, their appearance being usually considered as portentous of war, famine, pestilence, the death of monarchs, the subversion of kingdoms, or other great evils. On account of this apprehension the periods of their appearances have usually been carefully recorded, and in calculating their orbits considerable assistance is at times derived from these ancient records. The appearance in the year 1066 of a brilliant comet having three tails was considered by many as a a sign of the invasion and conquest of William of Normandy. In some of the ancient chronicles it is referred to as furnishing a proof of his divine right to the kingdom of England. But not only were comets considered as harbingers of evil, but fears were often entertained that they should in their course come into collision with the earth and thereby cause terrible results. This feeling still exists to a limited extent, considerable alarm having been manifested by many on the appearance of the comet in 1858, which in one part of its course passed across the earth's orbit. The utter groundlessness of these

* It may be reasonably assumed there is enough of fluid element, whether it be water or analogous to water, pertaining to every celestial sphere as well as the earth in order to the maintenance of its equilibrium in opposition to all the changes which may be wrought in the solid parts by intelligent beings as man, which tend to destroy equilibrium. Witness the piling up of large cities in certain places, and the transference of minerals from their native mines to other parts of the earth.

fears will be seen when people learn something of the physical constitution of these bodies. In ancient times comets were generally supposed to be meteors, exhalations, generated by inflammable vapors in the earth's atmosphere; but now it is ascertained beyond a doubt, that comets move in regions far beyond the limits of our atmosphere and form a portion of the solar system. But they differ in many respects from the planetary bodies before described. The planets revolve round the sun in orbits of small eccentricity, which for the most part approach nearly to circles. Comets, on the other hand, move in extremely elongated ellipses, parabolas or hyperbolas, the sun being situated almost at one extremity of their orbits; so that often, at their perihelion, they approach within less than a million of miles of it, and they swiftly dash away for a considerable period from his light and heat. It is clearly only those which move in elliptical orbits which can be periodical, as the parabola does not return again



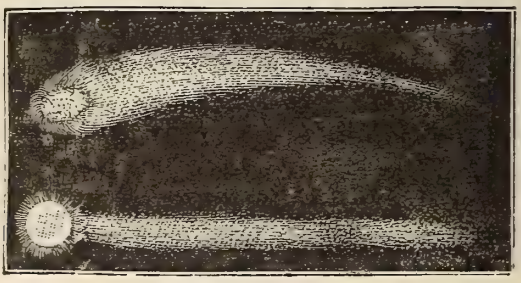
Fig. 123, Comet of 1811.

upon itself. About 300 comets have already had their orbits calculated, and of these more than one half are known to be parabolas; so that no second return of these latter can occur, unless, by the attraction of other heavenly bodies, their orbits should be considerably altered. Only five or six have been found to move in hyperbolic orbits. The number of known periodic elliptic comets whose orbits and periods have been ascertained, is about 20. Elliptic orbits have however, been assigned to many others, but no second returns of them have been seen, so as to verify the calculations. In by-gone

days, before the invention of the telescope, but few comets were observed. But now scarcely a year passes without four or five being observed; and frequently the number is greater. For the most part, however, they are so small as only to be visible by the aid of a good telescope. It is only at rare intervals that those large ones which are at once discerned by the naked eye become visible to us. The periods of these, likewise, are as a rule very much longer than those of the telescopic comets, so that the orbits of only a few of them have been determined. The first indication of a comet is usually a faint luminous speck visible with a telescope. This appears gradually but slowly to increase, as the comet approaches the sun ; and soon a bright spot, known as the *nucleus*, is discerned in it. This is usually of a circular form, and situated nearer to the side that is directed towards the sun. In telescopic comets this nucleus is not always discernible. As the comet approaches the sun it becomes larger and brighter ; the coma, or cloudy mass around the nucleus also becomes less regular ; and soon a tail begins to be extended on the side remote from the sun. It is this which forms the most remarkable feature in the appearance of a comet. The tail is usually more or less curved, and points away from the sun; so that when receding from that body the comet travels with his tail foremost. The preceding figure, 123, representing the comet of 1811, gives a good idea of the general appearance of these bodies, the nucleus, coma and tail being all distinctly marked. A period of 3,065 years was assigned to this

Fig. 124.

Fig. 125.



comet. On their return, after completing their orbits, comets seldom present the same appearance as before ; hence they cannot be identified by their form, but by the calculation of their orbits. According to many old illustrations some comets have presented very remarkable shapes, sometimes closely resembling swords or sabres. But allowance should be made by us in such cases for the imagination of the artist, excited by the terror occasioned by the approach of the comet. A few comets that have been observed had more than one tail. One

that appeared at the end of 1823, had, in addition to the usual tail, a second one directed toward the sun. The comet of 1744 is, however, the most remarkable, as it is stated that when it approached the sun, the tail was divided into six distinct branches, all curved in the same direction and extending 30° or 40° in length.

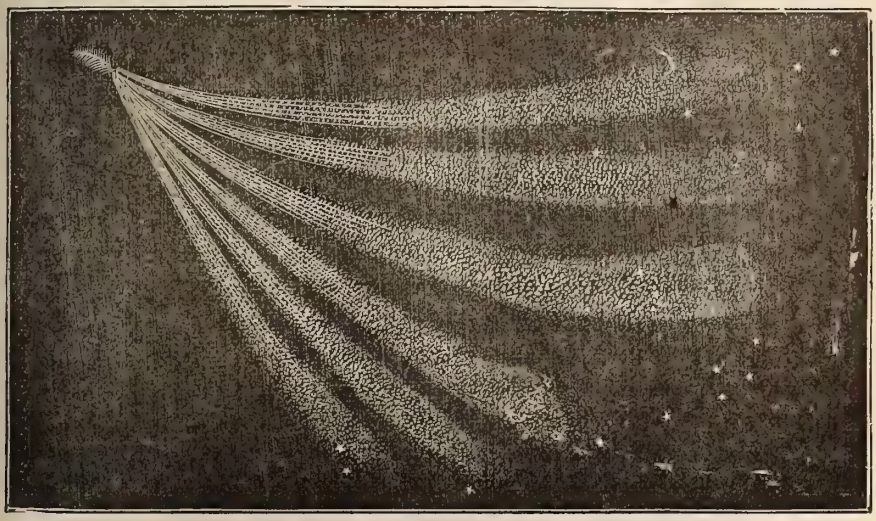


Fig. 126.

That called Halley's comet is one that has attracted a greater degree of attention than almost any other, as it was the first whose orbit was calculated, and its period is the longest of all those whose orbits are fully ascertained, and verified by subsequent returns. On its appearance in 1682, just after attention had been excited by the appearance, two years before, of a brilliant one whose motions Newton had investigated, Halley carefully examined its movements, so as to ascertain whether those of any which had previously been noted would in any way accord with them. He soon found that in several respects it seemed to resemble those of 1531 and 1607, and imagined that all three might be in reality appearances of the same body, its period being somewhere about seventy-five and a-half years. This conjecture proved to be correct, and Halley's comet is now reckoned as one of the members of our system, revolving round the sun in a period of seventy-six to seventy-eight years, its greatest and least distances from the sun being 3,200 and 56 millions of miles respectively. The return of this and all other comets is frequently retarded or accelerated by the attraction of the planets which happen to lie near their course. The period given above is, however, the mean period of Halley's comet; and on its last return, in 1835,

the allowances to be made for the influences of the planets were so carefully calculated, that the date of its perihelion passage was predicted within four days. The next return of this body is to occur in the year 1912. By searching back through the list of comets which have been seen, very many appearances of this body can be traced; one as far back as 11 B. C.; and the comet of 1066, already referred to, was, it is believed, an appearance of the same body. It made its appearance in 1456 with a very long tail, considerably curved; and an eclipse of the moon occurred when the comet was in close proximity to it, creating intense alarm.

The comet known as Donati's, which appeared in 1858, will perhaps be remembered by some. It was first seen on the 2d of June, at Florence, by Dr. Donati, after whom it was named. Its movements for the next two months were very slow. Towards the end of August, faint traces of a tail began to appear, and it soon became visible to the naked eye. It accomplished its passage round the sun on the 29th of September, its tail vastly increasing in length, being on the 10th of October upwards of 50,000,000 miles long. On the 5th of October the comet passed in front of the star Arcturus, and though a portion of the tail, at its densest part, having a thickness

Fig. 127.

Fig. 128.

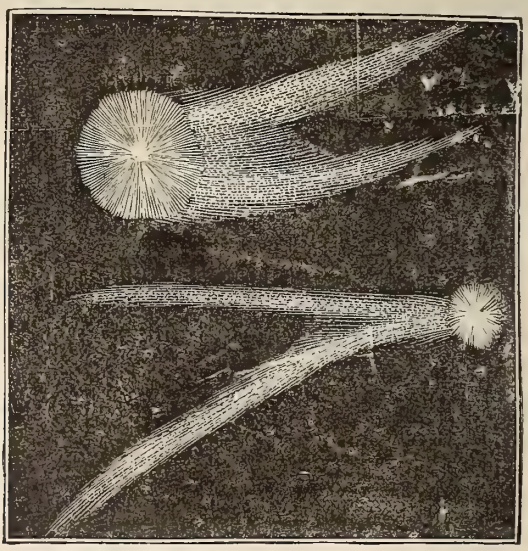
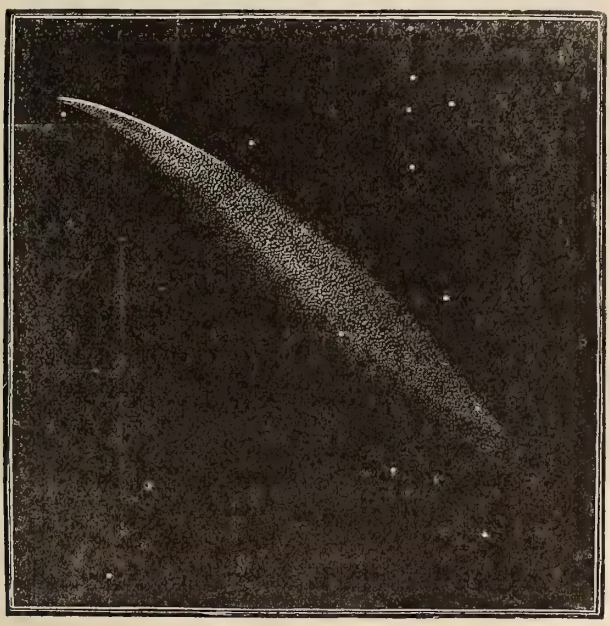


Fig. 124 is a view of a comet as seen on October 21st, 1807, by Schroeter; figure 125 is a view of the same comet as seen on the following evening, October 22. Figure 126 represents the tail of the splendid comet of 1744, which was divided into six branches. Fig. 127 represents the comet of 1661 as seen by Hevelius; the atmosphere or nebulosity surrounding the nucleus of this when viewed at different times varied in its extent, as likewise the tail in the length and breadth. Fig. 128 represents a class of comets which have their tails somewhat bent, which some suppose to be owing to the resistance of the etherial fluids through which they move.

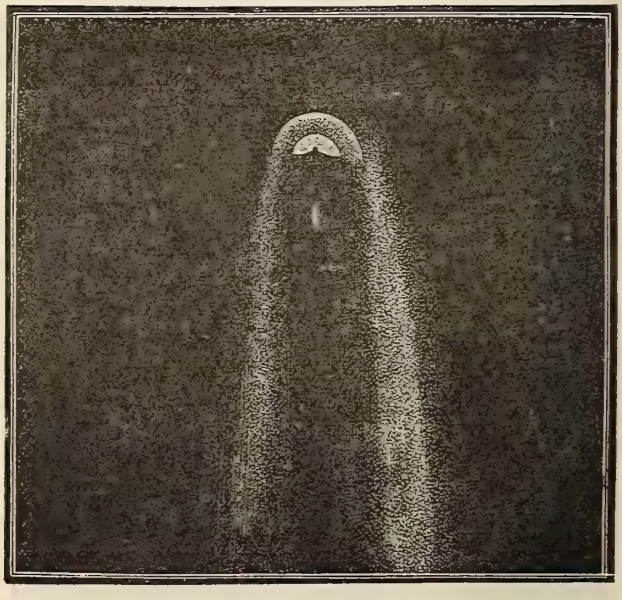
of several thousand miles, intervened between the observers and the star, its light was not so much enfeebled as it would have been by the faintest fog on the earth's surface. While the tail of this comet was being thrown out the nucleus was watched, and presented the appearance of a series of coverings being thrown off, and passing into the tail. As many as seven of these envelopes were distinctly ob-



Donati's Comet.

served. The tail appeared much brighter at the edges, and a dark band passed down the middle as if it consisted of a hollow cone. The observations on this comet were very numerous, and there is little doubt but that it revolves in an elliptic orbit, completing its journey in about 2000 years. The comet that appeared in 1861, was also a very remarkable one from the suddenness with which it came to view. It was discovered in the Southern hemisphere about the middle of May ; and in the latter part of June it was seen in the Northern hemisphere, only a portion of the tail being above the horizon in England, the 20th of this month. Its brightness was very remarkable, being greater than that of the one seen in 1858. Its tail, when at its greatest length, extended over nearly 80°, and was perfectly straight. It was, however, somewhat fan-like in shape. The following figure represents it, and shows the appearance of the nucleus when the tail was a throwing off. Mr. Hind states that it is probable that on the 30th of June, the earth actually passed through

the tail of the comet; and it is remarked in connection with this that on that day Mr. Lowe, and one or two other observers, noticed a peculiar phosphorescent glare in the sky.



Comet of 1861.

M. Biela, in 1826, discovered a comet which has since been known by his name, and has become remarkable. Observations made at different times soon showed that it moved in an elliptical orbit, and its period was found to be about 6½ years. Its return, in 1832, took place within a few hours of the predicted time. On its next visit to the sun it was invisible, owing to the position of the earth with respect to it and the sun being such that the comet was lost in the sun's light. Towards the close of 1845, when it again returned, a strange phenomenon was seen. The comet, which at first appeared almost circular, gradually became lengthened out, and at length divided into two parts, which continued to travel separately until lost sight of. Both parts reappeared in 1852, the distance between them having somewhat increased in the mean time. In 1859 it was again in an unfavorable position for observation, and so was not seen; and in 1866, from some unknown cause, it could not be found. Whether it has been altogether thrown out of its course by the attraction of some planet near which it passed, or what has become of it, is a matter that astronomers are at a loss to ascertain. There are several other comets which have a strange history; but we can only refer to one, Encke's, which performs its revolution in a period of

about 3¼ years. More appearances of this comet have been carefully observed than of any other, and by a comparison of these different observations Encke found that on each return it accomplished its passage round the sun in 2½ or 3 hours earlier than he expected. Its period thus appears to be diminishing by this amount, in each revolution. He conjectured that this might be accounted for by supposing that all space is occupied by an extremely rare medium, but yet one sufficiently dense to retard the comet to this extent, and thus to cause it gradually to be falling in towards the sun. Other conjectures have been made, but the matter is still a moot point among astronomers.

Of the physical constitution of these bodies comparatively little is as yet known. They are believed to be self-luminous masses of vapor, revolving round the sun. Some have supposed that in a few comets a solid nucleus exists; but the evidence on this point does not appear to be very strong, and if one does exist it evidently is very small. The general opinion, however, is against its existence at all, and the great majority of comets are known to be devoid of one. That the mass of these bodies is extremely minute is seen by the way in which they are affected by many of the heavenly bodies which they approach. Lexell's comet, for instance, when approaching the sun in 1770, passed so near to the planet Jupiter that it was entangled for several months among his satellites. Its orbit was completely changed by this contact, but no effect whatever could be discerned upon the satellites; whereas, had the comet's mass been at all appreciable, their times of revolution might have been slightly modified. So also the comets of 1858 and 1861, though they both passed near the earth, did not alter the length of our year by a single second. The fact that the light of even faint stars is scarcely at all diminished by passing through the tail of a comet has frequently been observed. It is known that the whole mass of a comet is so small that even though one should come into full collision with the earth no injurious effects would follow from the blow. Several large comets have at times passed so close to the sun as almost to graze his surface. The heat, therefore, to which they were exposed must have been extremely great, but they appeared not to be at all affected by it. The number of comets connected with our system has hitherto been found impossible to enumerate. Some have imagined that it must, indeed, be very great. But this fact is certain, that there may be many which from their position are altogether hidden from our view. The following is a list of the principal comets recognized as belonging to the solar system:

Name.	Period.	Date of next appearance.
De Vico's	5·469 years.	October, 1872.
Winnecke's	5·541 "	February, 1875.
Brorsen's	5·581 "	January, 1874.
Biela's	6·617 "	May, 1872.
Faye's	7·44 "	June. 1873.
Vestphal's	67·8 "	1920.
De Vico's	73·25 "	1919.
Brorsen's	75· "	1922.
Halley's	76·78 "	1912.

There are many others whose periods and dates have been calculated, but some need confirmation. As some of these latter closely agree in period, it has been conjectured that they have originally formed part of one large comet, which divided in a similar way to Biela's.

Shooting Stars : Meteorites.

We shall on a clear night be almost certain to see falling or shooting stars. These are much more common at certain seasons of the year than at others, but scarcely a night passes without some being visible. For a long period there appears to have been little or no notice taken of them by astronomers, it being believed that they owed their origin merely to gaseous exhalations from the earth, which became ignited in the atmosphere. But it was found that at some times the number seen was immensely greater than at others, and instances are recorded in which they outnumbered the ordinary stars, so that the display was termed a star or meteoric shower. Humboldt speaks of one of these which he witnessed on the 13th of November, 1799, when travelling in South America, and says: "Towards morning we witnessed a most extraordinary scene of shooting meteors. Thousands of bodies and falling stars succeeded each other during four hours. From the beginning of the phenomena there was not a space in the firmament equal in extent to three diameters of the moon, which was not filled every instant with bodies of falling stars." On the 13th of November, 1831, another grand meteoric shower was witnessed which was followed by others on the same date in 1832 and 1833. The last of these seems to have been the most brilliant and splendid that has been recorded. It was observed with peculiar effect in some of the cities of the United States. The whole of the sky appeared to be on fire, and in many places the utmost terror and alarm was caused by the sight. Thus writes one of the papers of that date in the Eastern States: "From a point in the heavens about 15° south-easterly from our zenith the meteors darted to the horizon in every point of the compass. Their paths were described

in curve lines similar to those of the circles of longitude on an artificial globe. They were generally short in their course, resembling much an interrupted line — — — — thus. They ceased to appear when within 10° of the horizon. I did not see a single meteor pass the meteoric pole I have described, nor one pass in a horizontal direction. Several of them afforded as much light as faint lightning. One in the north-east was heard to explode with a sound like that of the rush of the distant sky-rocket. Millions of these meteors must have been darted in this shower. The singularity of this meteoric shower consisted in the countless numbers of the celestial rockets, and more especially in their constant uniform divergence from near the zenith."

The annexed cut represents the appearance of these meteors for several hours as seen at Boston, New York, Philadelphia, and other places in the eastern parts of the United States. It is copied from one of the periodicals published in the Eastern States about the time when these phenomena appeared.

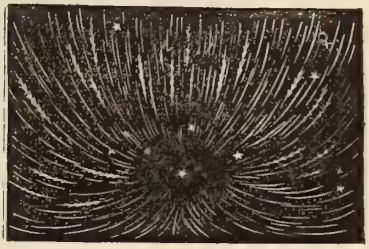


Fig. 129.

Another observer wrote: "The scene was truly awful, for never did rain fall much thicker than the meteors fell toward the earth." Many of the meteors were observed to leave behind them luminous trains, which were visible for a greater or less period. These have obtained the name of the November meteors, from the fact that at this period especially they fell in great numbers on three consecutive years. One remarkable fact was observed during the shower, and this was, that all the shooting stars appeared to radiate from a single point in the constellation Leo. According to the concurrent testimony of the observers this radiant point was stationary among the stars during the whole period of observation, that is, it did not move along with the earth in its diurnal revolution eastward—which tends to show the elevation of the meteors to have been beyond our atmosphere. Continued observations have shown that in the month of November there is always a much greater display of these bodies than at other times of the year. By examining likewise the records of these showers it was noticed that the grand displays seem to take place about every thirty-three years, sometimes have been seen for two or three consecutive years. It was accordingly suggested that not improbably a brilliant display might be seen in 1866, and though the numbers seen were not nearly so great as in 1833, the display was very grand and beautiful, so that those who watched through the night felt amply repaid for their trouble. Nearly all, as in previous

instances, appeared to radiate from the stars in Leo, and close to this spot many faint ones were seen, some seeming just to appear and vanish again, without having changed their position perceptibly. These were evidently travelling directly towards the earth, and hence their trains were so foreshortened as to be invisible.

These then are the main facts in connection with the phenomena of these meteors; and our task now is to find what we are to learn from them as to the nature and movements of these bodies. As we have observed, several facts seem to show that they had their origin beyond the surface of the earth; and the annual periodicity, it is supposed, may indicate that in certain parts of its orbit the earth is passing through a portion of space which is especially crowded with them. By noting the position of the spot whence they appear to radiate we learn the direction whence they are coming, and we find that the earth seems actually to be in the midst of a stream of them. There is an opinion now prevailing that there is a *ring* of those bodies revolving round the sun. This ring is about the dimensions of the orbit of the earth; it is inclined to the plane of the ecliptic at an angle of about 17°, cutting it just in the part in which the earth is situated on the 13th of November, so that at this period the earth is just passing through the ring. When the earth then at this time meets the stream of meteors they will, of course, seem to radiate from one point. Their uneven distribution in the stream may account for their constant fluctuation in number, and at any period they will only be visible at that part of the earth which is directed toward them. This explanation is, however, not deemed sufficient to account for the star shower being so much more brilliant one year than another, nor for the periodical interval of 33 years. It is thought moreover that, if we suppose that in one part of the ring they are clustered together more thickly than in the rest of it—that there is, in fact, in one part, a rich assemblage of these bodies, and that this group revolves in its orbit in about eleven days less than the earth does,—the whole will be explained. This assemblage, it is thought, extends over some small portion of the ring, so that at times the earth may for two or three successive years pass through or near the dense portion. It gains about 12° annually, so that for some thirty years the earth only passes through the portion where they are less crowded. Thus, in the figure, we suppose the dotted lines to represent the zone of meteorites distributed unevenly, but still for the most part kept within narrow limits. These are moving along from left to right. About the 13th of November the earth is moving along the part A B of its orbit in the direction indicated by the small arrows. It, therefore, meets the stream of meteors, which will, of course, all appear to radiate from one point. Their constant fluctu-

ations in number will be accounted for by their uneven distribution in the ring; and at any period they will only be visible to that part of the earth which is directed towards them.

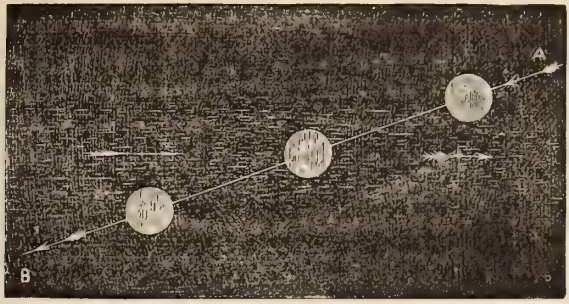


Fig. 130.

Besides the 13th of November there are other periods at which large numbers of these bodies are seen. The 9th to 11th of August is such a period; and though the numbers then seen are usually less than in November, the display is more certain and more uniform. There appear to be several of these rings of meteorites through which the earth passes at different periods; and a considerable number of radiant centres from which they diverge have been noted. Some astronomers suppose that the August and November meteors are parts of the same ring, which therefore cuts the earth's orbit in two points. The opinion that they are two separate rings is, however, more generally received. M. Arago, the French astronomer, is of opinion that we cannot account for such extraordinary phenomena unless we suppose that beside the planetary bodies which revolve around the sun there are myriads of smaller bodies, which only become visible at the moment when they come within our atmosphere, and assume a meteoric appearance; and that they move in groups and also singly; all of which opinions are in support of the "ring theory." Dr. Olmsted, of Yale College, who particularly investigated the meteoric showers of 1833, deduces the following among other conclusions: *that* the distance of the body whence they emanated was about 2238 miles; that they entered the earth's atmosphere with a velocity of four miles per second; *that* some of the larger meteors must have been bodies of great size, not less than a mile in diameter; and *that* they consisted of portions of a nebulous body which revolves around the sun in 182 days; all of which is in favor of the "ring theory."

As to the nature or constitution of these bodies not much yet is known. It is believed, however, that they are for the most part small solid bodies revolving round the sun as already described. If

they are moving in a contrary direction to the earth, the velocity with which they enter the earth's atmosphere must be very great. The resistance of the air soon checks this motion, but by the friction thus produced the body is so intensely heated that it becomes luminous, and ultimately is entirely consumed. The average height at which they become visible is seventy miles, and their course is about thirty miles. The weight of most of them is believed to be very small, possibly not more than a few grains. There are, however, a few which are much larger, and owing to their size pass unconsumed through the atmosphere, and fall to the earth's surface. These are usually distinguished as *meteorites,* and are sometimes divided into aerolites or meteoric stones, aerosiderites, or pieces of meteoric iron. It is not known whether these bodies, like those already described, move in elliptical orbits, though it has been observed that they too are somewhat periodical.

The fall of many of these have been recorded, and in many instances the masses themselves are carefully preserved. When the body has been seen to fall a loud report has frequently been heard, accompanying it, and sometimes fragments have been scattered over a large area, indicating that while falling the meteorite exploded. Mr. Barham relates that when riding in Jamaica one evening, he beheld a ball of fire apparently about the bigness of a bomb swiftly falling down with a great blaze. Approaching the place where it fell he found the ground strangely broken up, and ploughed, and several holes appeared of the bigness of a man's head, and all the green herbage burned up near the holes; at the same time he experienced a strong smell of sulphur.

In the year 1676 a great globe of fire was seen at Bononia, in Italy, about forty minutes after sunset. It passed with a rapid course, at the rate of not less than 160 miles a minute, and at last stood over the Adriatic Sea. It crossed all Italy in its course, and on computation it was found that it could not have been less than thirty-eight miles above the earth's surface. Wherever it approached, the inhabitants below could distinctly hear it with a hissing noise resembling that of a firework. It was heard to go off with a violent explosion. Its magnitude, when over Bononia, appeared twice as long as the moon one way and about as broad the other. It was estimated to be a mile long, and about half a mile broad. One of the most striking and extraordinary of this kind of meteors made its appearance in Britain on the 18th of August, 1783, about nine o'clock in the evening. It was seen in all parts of the island, from the Shetland Isles to the English Channel, over all France, and a great part of Italy, and is supposed to have described a track of at least 1000 miles over the surface of the earth. It appeared to have burst

and re-united several times, and the first bursting which was noticed was somewhere over Lincolnshire, in England. Its appearance created universal wonder and alarm. When it was observed at Brussels the moon appeared quite red, and the illumination was so great as totally to obliterate the stars. A report was heard some time after it disappeared, which was very loud in the South-eastern counties of England. A hissing sound was said also to accompany its progress. At Greenwich two bright balls, parallel to one another, led the way, and were followed by the expulsion of eight others. The balls seemed tinted first with a pure bright light, then followed a yellow, mixed with azure, red and green, which, with a coalition of bolder tints, and a reflection from the other balls, gave the most beautiful rotundity and variation of color with which the eye could be charmed The height of this fire-ball was reckoned at from seventy to ninety miles; its diameter was estimated at nearly two miles, and its velocity at 1000 miles a minute. The same year, on October 4th, at forty-three minutes past six in the evening, another meteor appeared nearly of the same description, but much smaller and of shorter duration. It was first perceived to the northward, as a stream of fire, like the common shooting stars, but large; and presently burst out into that intensely bright bluish flame, which is peculiar to such meteors. It was nearly globular, but left behind it a dusky red streak of fire. After moving ten degrees in this state it became suddenly extinct without any explosion. Its height was estimated at between forty and fifty miles. The celebrated Gassendi relates that a meteor fell at Vaison, in France, of the size and shape of the human head; it was mainly composed of iron. In April, 1803, a brilliant fire-ball was seen in Normandy, travelling very rapidly; shortly after which a loud explosion was heard, and a great number of pieces of stone fell to the ground, nearly 3,000 being collected. When picked up soon after they have fallen these bodies are usually found to be intensely hot. On chemical examination no new elements have been discovered in them but such as are known to be distributed throughout the earth's crust. These are fifteen in number, namely, iron, nickel, cobalt, manganese, chromium, copper, arsenic, zinc, potash, soda, sulphur, phosphorus, carbon, &c., constituting altogether nearly one third of all the known simple bodies.

Some of these meteors, especially the large fiery ones, doubtless owe their origin to gaseous exhalations from the earth, which, assuming different forms in the atmosphere, under a variety of combination, descend to the earth again with the manifestation of light; and, as for the rest (the star showers), the theory of small bodies revolving round the sun in an orbit which intersects the plane of the earth's orbit, whence they would come within the sphere of the earth's

attraction, does not appear unreasonable, and may be sufficient to account for their appearance. The idea of any of the heavenly bodies, by explosive action of any internal or external force, sending any of their constituent parts beyond their spheres of attraction, appears as unreasonable as it does impossible.

The Aurora Borealis, or Northern Lights.

For beauty there is none of the luminous meteors that surpass the Aurora Borealis or Northern Lights. This is not unfrequently seen in our latitudes, but less frequently and with far less splendor than it appears in the polar regions. Its form varies greatly; when perfectly developed, an arch of light appears to cross the sky a little way above the horizon, and from this, quivering streamers dart upward

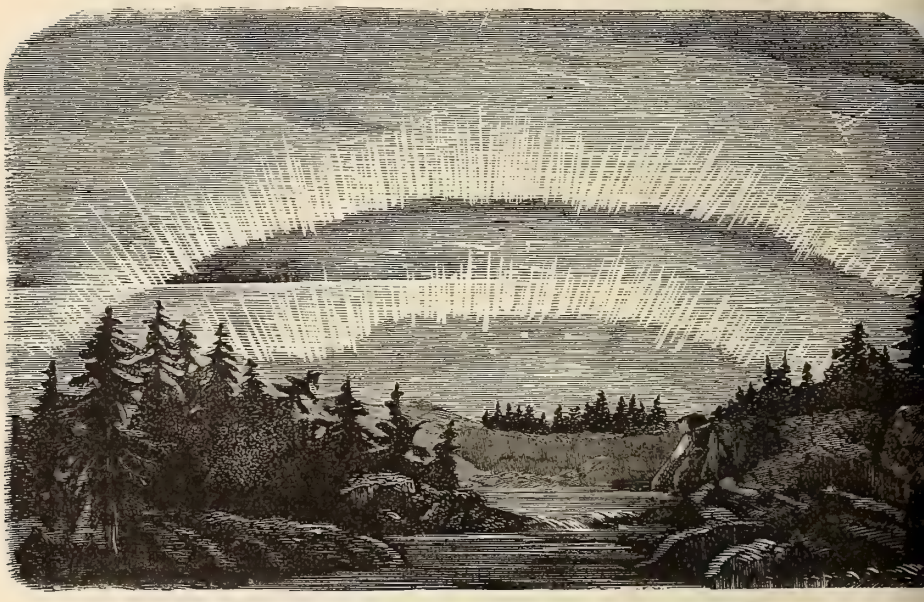


Fig. 131.—THE AURORA BOREALIS OR NORTHERN LIGHTS.

continually towards the zenith, giving rise to the name of "the merry dancers," by which this phenomenon is sometimes known. Frequently several auroral arches are seen at once, and the effect is then very grand and sublime. At other times the streamers appear to shoot up from behind distant hills. It has also been known to assume the form of a huge curtain suspended in massive folds, which reflect various colors. The Aurora in our latitudes appears almost always far less distinct and perfect than any of these; at times its ruddy glow has been mistaken for that of a distant fire.

Various hypotheses have been started to account for these appearances. The fluctuations of the magnetic needle, which occur during

their continuance, indicate strongly an electrical origin; and this is further confirmed by the fact that telegraphic messages have been interrupted and the alarms rung by the auroral currents. Humboldt says: "The bold conjecture hazarded, one hundred and twenty-eight years since, by Halley, that the Aurora Borealis was a magnetic phenomenon, has acquired empirical certainty from Faraday's brilliant discovery of the evolution of light by magnetic forces. The northern light is preceded by premonitory signs. Thus, in the morning before the occurrence of the phenomenon, the irregular horary course of the magnetic needle generally indicates a disturbance of the equilibrium in the distribution of terrestrial magnetism. When this disturbance attains a great degree of intensity the equilibrium of the distribution is restored by a discharge attended by a development of light. The Aurora itself is therefore not to be regarded as an externally manifested cause of this disturbance, but rather as a result of telluric activity, manifested on the one side by the appearance of the light, and on the other by the vibrations of the magnetic needle." "This phenomenon derives the greater part of its importance from the fact that the earth becomes *self-luminous*, and, that as a planet, besides the light which it receives from the central body, the sun, it shows itself capable in itself of developing light. Occasionally, as on the 7th of January, 1831, the intensity of the terrestrial light is so great that printed characters can be read without difficulty." Earth currents are much stronger during the continuance of the Aurora, and hence this phenomenon is now generally attributed to the discharge of electricity into the upper regions of the air, in effecting a restoration of a disturbed condition of equilibrium.

The Mariner's Lights.

The Mariner's Lights, sometimes called St. Elmo's Fire, is another of the electrical meteors. A bright flame-like light is seen at the top of the masts and sometimes at the ends of the spars. This flame often points towards an approaching cloud, increases in length as the cloud passes over it; at times it has been seen as much as two or three feet long. The appearance is easily accounted for, and a good illustration of the same effect is seen by holding a sharp point near the conductor of an electrical machine. The electricity from the cloud, instead of passing off in the form of a flash of lightning, is in this way silently carried off by induction. In mountainous regions travellers have occasionally noticed a somewhat similar appearance at the end of their sticks or umbrellas, and a faint hissing sound usually accompanies it. The air in this case is highly electrical; and the pointed ends of the sticks have served to attract the fluid

and discharge it. Both the Aurora and the Mariner's Lights are merely manifestations, as light, of a substance which we may call electricity.

THE FIXED STARS.

Let us now turn our attention for a little from the solar system to the fixed stars which appear in such vast profusion in the sky; and before we begin to contemplate these remote luminaries it may be well for the reader to form some idea of the distances at which they are from us, and as to the magnitudes of some of them. Great as the sun and his surrounding planets are, they dwindle into a point when we wing our way to the regions of the stars. Before we could arrive at the *nearest* star that is visible from our globe, we behooved to pass over a space of at least twenty billions of miles in extent, a space which a cannon-ball, flying with its utmost velocity, would not pass over in less than *four millions of years*. Here every eye on a clear winter's night may behold a thousand shining orbs, most of them emitting their splendor from spaces immeasurably distant; and bodies visible to us at such distances must necessarily be of immense magnitudes. There is reason to believe that the least twinkling stars which our eyes can discern is not less than the sun in magnitude and splendor; and that many of them are a hundred or even a thousand times superior in magnitude to that stupendous luminary. Sir W. Herschel, when speaking in reference to Dr. Wollaston's photometrical experiments on the light of Sirius (the brightest star), says, "Dr. Wollaston's assuming, as we think he was perfectly justified in doing, a much lower limit of possible parallax in Sirius than we adopted in the text, has concluded the intrinsic light of Sirius to be *nearly that of fourteen suns*." Sir W. Herschel informs us that with a magnifying power of 6450, and by means of his new micrometer, he found the apparent diameter of *Vega* or *a Lyræ* to be 0′.355; this will give the real diameter of the star about 38 times that of the sun, or 33,440,000 miles, supposing its parallax to be one second. Were this its true estimate its solid contents would be 19,579,357,857,382,400,000,000, or above nineteen thousand, five hundred and seventy-nine trillions of cubic miles; which is fifty-four thousand, eight hundred and seventy-two times larger than the solid contents of the sun.

It is very difficult from mere inspection to form any estimate of the number of these bodies; it appears, however, from catalogues which have been compiled, that the total number of stars visible to the naked eye is about 6000. One half of the sky only can be seen at one time, and the number visible on a clear night may therefore be set down approximately at 3,000. These stars vary greatly in bri

liancy and apparent size, and have accordingly been divided into six classes, the brightest being classed as of the first magnitude, while the faintest visible to the naked eye are set down as of the sixth; the rest being divided into the intermediate four magnitudes. As a general rule it is computed that stars of the first magnitude are about 100 times as brilliant as those of the sixth. The light of Sirius is estimated, however, to be equal to that of 324 of the latter. Though the number of stars seen by the naked eye is thus limited, it must not be supposed that these are all that exist. If we direct a telescope to any part of the sky we shall at once perceive that the field of view is covered with points of light, and the number of these telescopic stars is found to be infinitely greater than that of those visible to the naked eye. These telescopic stars are classed into magnitudes down to the fifteenth and sixteenth, or even lower, according to the power of the telescope employed for bringing them into view. The stars are especially numerous in the regions of the Milky Way, that starry belt that encircles the sky, with which every common observer is familiar. The ancients seem to have believed that the brightness of this zone was owing to a confluence of stars, for Ovid writes: "Its groundwork is of stars."

Soon after the invention of the telescope, when astronomers were enabled to penetrate the stellar regions, they were astonished at the number of stars that appeared in this shining zone of the heavens; and their numbers appeared to increase in proportion to the magnifying powers of their telescopes. It was not, however, till Sir W. Herschel applied his powerful instruments to this region of the heavens that its profundities were explored, and all its minute nebulous parts shown to consist of countless myriads of stars of every apparent magnitude stretching on to infinity, until they appeared to be lost to the eye, even when it was assisted by the largest telescopes. In several fields of view of this zone, occupying a space not much more than twice the breadth of the moon, one perceives through a good telescope more of those twinkling luminaries than all the stars visible to the naked eye throughout the whole canopy of heaven. In certain places in it, every slight motion of the telescope presents new groups and new configurations; and the diversified and wondrous scene is continued over many degrees in succession. The variety and the beautiful configurations of the stars strikes the observer with amazement, and makes him feel as if he were lost in penetrating the immensity of the universe. Sir W. Herschel explored this region of the heavens with a Newtonian reflecting telescope of twenty feet focal length, and an aperture of eighteen inches. He found that this telescope completely *resolved all the whitish appearances into stars*, which the telescopes he formerly used had not light enough to do.

The portion he first observed was that about the hand and club of Orion; and he found in this place an astonishing number of stars, the number of which he endeavored to estimate by counting many fields; that is, the apparent spaces in the heavens he could see at once through his telescope, without moving it, and computing from a mean of these the number that may be contained in a given portion of the Milky Way. In the most vacant space to be met with in that region he found 63 stars; other six fields contained 100, 60, 70, 90, 70, and 74 stars; a mean of all which give 79 for the number of stars in each field; and then he found that by allowing 15′ for the diameter of his field of view, a belt of 15° long and 2° broad, which he had often seen pass through his telescope in an hour's time, could not contain less than 50,000 stars, large enough to be distinctly enumerated; beside which he suspected twice as many more which he could see only now and then by faint glimpses for want of sufficient light. The reader may remember that these stars extended onwards to infinity, that is, that there is *no end* to them in that one or in any direction,* and the small place occupied by those now mentioned is only the $\frac{1}{43\,75}$th part of the visible canopy of the heavens; so that if every part of the firmament were equally rich in stars, there would be *within the reach* of such a telescope as Herschel's no less than sixty-eight millions seven hundred and fifty thousand stars. And it may be further considered that it was only in the comparatively "vacant spaces" of this zone that the number of stars stated above were perceived.

In exploring some other parts of the zone, Sir W. Herschel informs us that he descried a much greater number of these luminaries in a similar extent of space. "In the most crowded parts of the "Milky Way," he says, "I have had fields of view that contained no fewer than 588 stars, and these were continued for many minutes, so that in one quarter of an hour's time there passed no less than 116,000 stars through the field of view of my telescope." In order to understand this description, we are to understand the telescope to have been fixed in one position at the time of observation; and that, by the diurnal motion of the earth, or the apparent motion of the heavens, the first field of stars gradually passed out of view, and other fields appeared in succession; until, in the space of fifteen minutes of time, one hundred and sixteen thousand stars passed over the field of vision. Now the field of view taken in by the telescope was only 15′ of a degree, less than the one-half of the apparent size of the moon. In this narrow field were seen about as many stars as

* Some theologians appear to understand the material universe as limited; but there is no reason to conclude that what we understand as matter in its various forms is not infinite. It is quite as easy to conceive of matter infinite as to conceive of pure space devoid of all matter existing infinitely outside of and beyond all matter.

observers generally behold throughout the whole firmament by the naked eye in a clear winter's night. At another time, this indefatigable astronomer perceived no less than 258,000 stars pass before his view in the course of forty-one minutes. In the space between β (Beta) and γ (Gamma) of the Swan the stars are found clustering with a kind of division between them, so that they may be considered as clustering towards two different regions. In this space, taking an average breadth of about 5°, he found from observation that it contains more than 331,000 stars, which gives above one hundred and sixty-five thousand for each clustering collection. I we suppose every part of this starry belt equally full of stars as this space now referred to, it will contain no less than 20,191,000 stars; for, supposing the Milky Way to be, on an average, 12° broad, the whole of it will contain an area of $4320 = 12° \times 360°$, for this belt extends clear round the heavens. Now if the space examined by Herschel between Beta and Gamma of the Swan be about 14° in length, and 5° in breadth, it will contain an area of 70°, which is somewhat less than the $\frac{1}{61}$st part of the space occupied by the Milky Way. The whole visible heavens considered as a concave spherical plane contains an area of 41,253°. Now, could we suppose every portion of the firmament to be equally well replenished with stars as the Milky Way, there would be more than 195,000,000, or more than one hundred and ninety-five millions of stars in the heavens *discernible* by such a telescope as that of Herschel; but as there are comparatively few other regions of the heavens which are open to our view so densely crowded with stars as the Milky Zone, we must make a certain reduction from this estimate of *discernible* stars, though it is most probable there are more than one hundred millions of stars within the reach of our best telescopes, were all the spaces of our firmament moderately well explored; and future generations with more perfect instruments will probably add indefinitely to the number. Had we taken the most crowded field of stars which Herschel perceived through his telescope, namely, 588, as our standard for estimating their number, the number of stars on the Milky Way would have been forty millions, and in the whole firmament three hundred and eighty-eight millions. In short, to use the words of Sir John Herschel: "This remarkable belt when examined through powerful telescopes, *is found* (wonderful to relate!) *to consist entirely of stars scattered by millions like glittering dust on the black ground of the general heavens.*" Now in regard to the distances of some of these discernible stars, we may easily conceive that they are immense, and far beyond our distinct comprehension. Sir W. Herschel, in endeavoring to determine a "sounding line," as he terms it, to fathom the depth of the stratum of stars in the Milky

Way, undertakes to prove by pretty conclusive reasoning, that his *twenty-feet* telescope penetrated to distances not less than 497 times the distance of Sirius; so that a stratum of stars amounting to 497 in thickness, each of them as far distant from each other in a direct line beyond Sirius as the star Sirius is distant from our sun, was within the reach of his vision, when looking through that telescope. Now, the least distance at which we can conceive Sirius to be distant from the earth or sun is 20,000,000,000,000 or twenty billions of miles, and consequently the most distant stars visible in his telescope must be four hundred and ninety-seven times this distance, that is, 9,940,000,000,000,000, or nearly ten thousand billions of miles. Such immense distances are already infinitely beyond the power of our conception; a cannon-ball moving at the rate of 500 miles an hour would occupy more than 2,267,855,068, or two thousand two hundred and sixty-seven millions, eight hundred and fifty-five thousand years in traversing that amazing interval.

On our first excursion into the celestial regions we are almost terrified at the idea of the distance of Saturn, which a cannon-ball projected from the earth and flying with its utmost velocity, would not reach in 180 years. We are astonished at the size of such a globe as Jupiter, which could contain within its circumference over thirteen hundred globes of the size of the earth. We are justly amazed at the stupendous magnitude of the sun, which is more than a thousand times the size of Jupiter, and which illuminates with its splendor a sphere of more than five thousand millions of miles in circumference. But what are all such distances and dimensions, vast and amazing as they are, when compared with the astounding grandeur of the scene before us? They sink into comparative insignificance, and are almost lost sight of amidst the myriads of splendid suns which occupy the profundities of the Milky Way. What is one sun and one planetary system in the presence of ten millions of suns, perhaps immensely more resplendent, and vastly more magnificent; and of hundreds of times this number of spacious worlds, which beyond all doubt revolve around them! Yet this scene, stupendous as it is, is not the universe. It is indeed only a comparatively small corner of it, which beings at an immensely greater distance will behold as an obscure and scarcely discernible spot on the outskirts of their firmament, and infinite numbers will not be able to behold at all, being situated at infinite distances from it. So that amidst this vast assemblage of material existence we may say in the language of the prophet, when speaking of the Almighty: "Even here is but the hiding of His power." Now what is man and the globe on which he dwells, amidst this sublime scene of immensity and magnificence! An atom in the infinite space, an infinitely small

particle of vapor compared to the ocean, a being who in respect to the magnificence of the universe and the grandeur of his Creator, is as nothing, and is counted to Him as less than nothing, and vanity.

Double Stars.

When we observe the heavens on a clear night we see here and there two stars in very close proximity; the telescope further reveals to us the fact that very many of those which appear to the naked eye as single stars consist in reality of two or more so close together that they appear as one. Sir W. Herschel was the first to direct special attention to these, of which he compiled a list. He hoped that by accurate measurements of the apparent distance between them, he might be able in some instance to detect a variation, and thus ascertain their parallax, and by this their distances. The idea, then, was that these stars merely appeared close together because they happened to be in a straight line directed almost towards the earth; that they were in fact merely optical couples, one being at an immense distance behind the other. After long-continued observation, Herschel found that their distances and relative positions did vary, but instead of it being as he expected, an annual fluctuation caused by the earth's motion, it was a progressive change. He thus found that in some cases the stars were revolving round one another in elliptic orbits, and they were physical couples, the two forming one system. These he called binary stars, or couples, to distinguish them from optical pairs. Other observers have followed up these investigations, and there are now upwards of 600 binary stars known and noted, and in many cases their times of revolution are thought to have been calculated. Of course these results will have to remain subject to future modifications, for we know that, considering the immense distances of the stars, accuracy in these respects can only be approximated to.

One of the best examples of double stars is afforded by ε Lyrae, which is sometimes called the double star. To the naked eye it appears a somewhat faint star, but a telescope of very moderate power will show it to be double. But when a more powerful instrument is employed, each of these components is in turn found to consist of two smaller ones. The lower pair, it is said, revolves in about 2000 years and the upper in about half that time, while the two couples take a very long period to revolve around their common centre of gravity. See the annexed figure. It is but lately that the attention of astronomers has been directed to such observations; and on account of the very minute distances of the revolving stars from each other, and the slight variations in the angle of po-



sition which can be traced for a series of years, an age or two is requisite in order to determine with precision the degree of progress of their revolutionary movements. In the course of time, and by means of improvement in optical instruments, we may believe many important discoveries will be made in reference to the bodies in question, and that what is at present doubtful and obscure will be rendered definite and precise. But as the most powerful instruments which can be invented can carry our view only a very small distance comparatively beyond the outward boundaries of those mighty visible heavens which surround us, millions of those systems may still exist in those remote regions which will forever remain inexplorable by the inhabitants of earth.

Colored Stars.

One remarkable feature in connection with those binary stars is the fact that in some instances the component stars are of different colors. In ρ Leporis, for example, one is white, while the other is deep red. In β Cygni, again, the colors are yellow and blue. And in γ Andromedæ they are orange and green. "Many of the double stars," Sir John Herschel remarks, "exhibit the beautiful and curious phenomena of contrasted or complementary colors. In such instances the larger one is usually of a ruddy or orange hue, while the smaller one appears blue or green; probably in virtue of that general law of optics which provides that when the retina is under the influence of excitement by any bright-colored light, feebler lights, which seen alone would produce no sensation but of whiteness, shall for the time appear colored with the tint complementary to that of the brighter. Thus a yellow color predominating in the light of the brighter star, that of the less bright one in the same field of view will appear blue; while, if the tint of the brighter star verge to crimson, that of the other will exhibit a tendency to green, or even appear as a vivid green under favorable circumstances. The former contrast is beautifully exhibited by *Iota Cancri*, the latter by *Gamma Andromedæ*, both fine double stars. If, however, the colored star be much the less bright of the two it will not materially affect the other. Thus, for instance, Eta Cassiopeiæ exhibits the beautiful combination of a large white star and a small one of a rich ruddy purple. It is by no means, however, intended to say that in all such cases one of the colors is a mere effect of contrast; and it may be easier suggested in words than conceived in imagination what variety of illumination two suns, a red and a green, or a yellow and a blue one, must afford a planet circulating about either, and what charming contrasts and grateful vicissitudes, a red and green day, for instance, alternating with a white one and with

darknesss, might arise from the presence or absence of one or other or both above the horizon. Insulated stars of a red color almost as deep as that of blood, occur in many parts of the heavens, but no green or blue star of any decided hue has we believe ever been noticed unassociated with a companion brighter than itself." This variety of colors in the double stars arises doubtless for the most part, if not altogether, from complementary colors; and as to the stars that appear insulated, and exhibit a rare color, we know there are different degrees of whiteness in light; the light of a candle, for example, or that which arises from the incandescence of some of the elementary substances is not as clear a white as the solar light; and, further, when we come to note the color of different stars, and compare it with former records, we find that in a few instances a change has taken place. Thus, Sirius, which now shines with a pure bright light, is spoken of by old observers as a ruddy star. There are also many others which exhibit changes in brilliancy; and these changes seem in most cases to be periodical. The star on which this discovery was made is *Omicron Ceti*, called also Mira, or the wonderful star, a name that is very appropriately given to it. At the time of its greatest brightness it is usually of the first or second magnitude, it then decreases for two or three months till it becomes invisible, and remains so for about five months, its minimum brightness being about equal to that of a star of the twelfth magnitude. It then again appears, and the whole period occupied in these changes is about 331 days. Algol or *Beta* Persei is another variable star, remarkable for its short period and rapid changes. It ordinarily appears a star of the second magnitude, but in a period of three and a-half hours it diminishes in brightness to the fourth magnitude, and after a few minutes begins again to increase, and attains its former brilliancy in another period of three and a-half hours. At this it remains two days, thirteen hours, and then the same series of changes recurs.

As to the mode of classification of the stars into magnitudes, &c.

We have mentioned that the telescopic stars are classed into magnitudes, according to their apparent brightness through the telescope. The question naturally suggests itself whether these different degrees of brightness result from differences in the size of the stars, or in their distances. To this it cannot be answered with certainty, as there are only a few stars whose distances have been approximately measured. There appears, however, to be little doubt that the difference is chiefly in their distances. The distances of the stars are ascertained in the same manner as those of the sun

and planets, that is, by parallax. Instead, however, of taking two stations at different parts of the earth's surface, and having the distance of the earth's diameter or semi-diameter as a base line between them, the diameter of the earth's orbit is taken as a base line, which is 183,000,000 miles, the observations being taken at intervals of six months, or when the earth is in the two opposite points of her orbit. But even with this immense line the parallax is so small, that it can only be detected by the most careful observations, and accurate instruments. In no case has it been found to be greater than 1″, and if this be its value the distance of the star must be 206,000 times as great as that of the sun. The parallax of about a dozen of stars is now believed to be ascertained, and is found to vary between 0·919″ and 0·046″. The star *Alpha Centauri* is the nearest to the earth, and its distance is estimated at 20,496,000,000,000 or twenty billions four hundred and ninety-six thousand millions of miles; while the average distance of stars of the first magnitude is probably three or four times as great as this. These figures, however, fail to convey to the mind any definite idea as to the real distances.

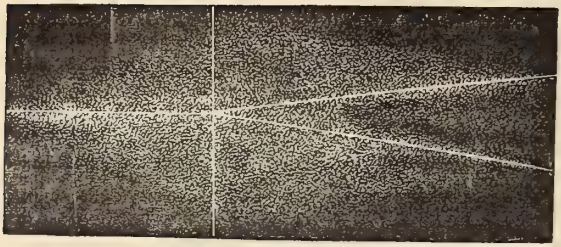
The heavens were divided by the ancients into twelve constellations or assemblages of stars, which they designated by different names, as before mentioned; and many new ones have been added to this number in modern times, so as to make in all 109. Several of these are, however, but small and unimportant, and hence are rejected by some astronomers. Special names, too, have been assigned to many of the most brilliant stars, but these have a tendency to confuse. In 1604 a German astronomer, named Bayer, published a celestial atlas, in which he designated the stars in each constellation by the letters of the Greek alphabet, the brightest being called α, the next β, and so on. This plan was found to answer so well that it has been continued to the present time. In some constellations, however, the number of stars now catalogued is so great that more letters are required to denote them; the English alphabet, therefore, follows the Greek; and if both prove insufficient the remaining stars are denoted by numbers. In a few instances in Bayer's catalogue the stars are not arranged quite in their order of brightness, either from want of accuracy in Bayer's observations, or from a change in the light of the star since his time; but it is considered better not to attempt to amend this, as it would only produce confusion. The best plan for one to follow who wishes to become acquainted with the different constellations is to study the sky itself with the aid of some maps, or of a celestial globe. Several of the constellations, as the Pleiades, the V-shaped Hyades; and Orion, with the three stars in the belt, commonly known as the

Yard Measure, also the great and the Little Bear and the Pole Star, are familiar to almost every one: these will serve as a guide in determinating others.

As to the motions and position in space of the Sun and the solar system.

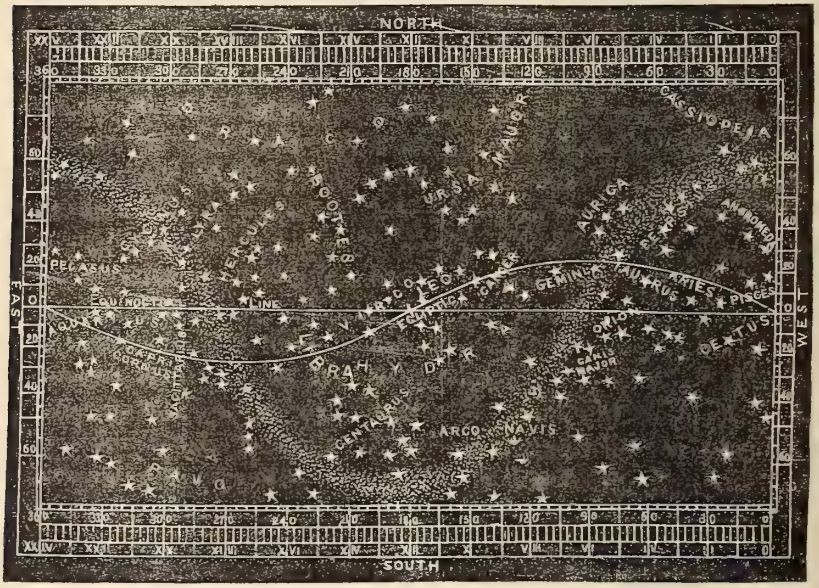
The stars are all of them bright, self-luminous bodies, like our sun, which, indeed, appears to other worlds to be one of the stars. Delicate observations show that they have proper motions, but it is very difficult and requires long-continued observations to determine them. We can, however, ascertain the motion of the sun by observing the relative distances of the stars. The stars in one part of the sky are seen gradually opening out, and getting further apart, while in the opposite quarter they are as gradually closing up; evidently showing that we are moving towards the former part of the heavens, just as when we are travelling in a forest the trees in front seem opening out, while those we have passed appear to be getting closer together. Now Sir W. Herschel found that the apparent proper motion of 44 stars out of 56 are very nearly in the direction which should result from a motion of the sun toward the constellation Hercules, or to a point of the heavens whose right ascension is 250° 25½′, and north declination 49° 38′. "No one," says Sir J. Herschel, "who reflects with due attention on the subject, will be inclined to deny the high probability, nay *certainty*, that the sun has a proper motion in some direction." If the sun then have a proper motion in space, as it appears probable it has, all the planets with their satellites, along with the comets, must partake of it; so that beside their own proper motions around this luminary, they likewise move along with the sun through the depths of infinite space with a velocity perhaps approaching to that with which they move around in their orbits. The earth will, therefore, partake of three motions, one around her circumference, one around the sun, and another in the direction in which the sun is moving; and consequently it appears probable we shall never again occupy that position in infinite space through which we are now passing.

The sun, with his system of planets, &c., is found to occupy a position in a nebulæ or cluster of stars, of which the Milky Way forms the main part. This Milky Way, in one part of its course around the celestial sphere, divides into two branches, which after separating a little way, and passing about a third around the sky, again unite into one. This may be illustrated by taking a flat circular body, as, for example, a cheese, and splitting it in the centre of the circumference, by passing a knife one-third of the way through,



SECTION OF THE MILKY WAY.

the two parts being made to diverge a little, as shown at *a*, *b* in the figure. The sun *s* is situated somewhere near the centre, and the split side causes the divided appearance of the Milky Way. Of course if the sun is moving through the regions of space, as it apparently is, though at a slow rate of motion compared with the orbitual motions of the planets, all the other stars of this nebular cluster are also moving relatively;



MINIATURE MAP OF THE HEAVENS ON MERCATOR'S PROJECTION, SHOWING THE COURSE OF THE MILKY WAY.

for the fixed stars always maintain the same relative positions to each other. The sun with his system, doubtless, revolves in a cycle to which thousands of years are as nothing, in an elliptical or circular orbit, around some reciprocal centre of gravity.

Temporary Stars.

Closely allied to the variable stars are the new or temporary stars which have at times attracted much attention. Several appearances of such stars have been recorded; one of the most re-

markable is that observed by Tycho Brahe, in November, 1572. This star seems to have burst forth very suddenly, as it is said the constellation Cassiopeia, in which it appeared, had been carefully observed by an astronomer only two days before the star was seen, and that then no trace of it was observed. Also Tycho Brahe himself did not see it at half-past five when going from his house to his laboratory; but returning to his house about ten, he came to a crowd of country people who were staring at something behind him. Looking round he saw this wonderful object. It was so bright that his staff cast a shadow; it was of a dazzling white, with a little of a bluish tinge. It had no hair or tail around it, similar to comets, but shone with the same kind of lustre as the other fixed stars. It was even seen, by those who had good eyes, at noonday. Its phenomena, it is said, were so striking as to determine the celebrated Tycho Brahe to become an astronomer. This star continued visible for about sixteen months, gradually becoming fainter till it disappeared. In 945 and 1264 stars had appeared in the same constellation in a somewhat similar manner, and as the intervals between the three dates are almost equal, it has been conjectured that they might be three appearances of the same object. If this be the case, this star in the course of a few years (in 1891 or 1892, as thus its period would be about 319 years) may make its appearance again, and thus we might have an opportunity of gazing upon this object, which in former times attracted so much attention. Another temporary star of considerable brilliancy appeared in the year 1604, and was also carefully observed by Brahe. Modern times, however, have furnished us with several instances of this kind. In 1848 Mr. Hind observed a new star in Ophiuncus. It increased in brilliancy to the fourth magnitude, but subsequently decreased to the 11th or 12th, at which it now remains. In 1866 a new star appeared in the Northern crown, and was very minutely examined. It had been previously noted as of the sixth magnitude, but it suddenly shone out as a star of the second magnitude; its light, however, diminished very rapidly for some time. Attention was at once directed to it, the spectroscope being now available for observation. This instrument exhibited, in addition to the ordinary spectrum of the star, a second spectrum of bright lines, prominent among which were those indicative of burning hydrogen; so that it appears as if in this instance a sudden blaze was produced by incandescent hydrogen and other substances.

When old star catalogues are compared with those of the present day, it is found that, in addition to many changes of magnitude, several stars, whose places are there recorded, are now no longer to

be seen; and, on the other hand, that some of those now known are not recorded in the old lists, although their brilliancy is considerable, and would probably have insured their insertion had they been visible. In many other cases doubtless the discrepancy may have arisen from errors in observation; but there is no doubt that many stars have altogether disappeared, and it is not improbable that some of these may be variable stars, which, after a more or less prolonged absence, may again become visible. Different explanations have been offered to account for these phenomena. Some imagine the star to revolve in an immense orbit, and that when it is visible it is in the part of that orbit nearest the earth, gradually increasing in brilliancy as it approaches to its nearest point, and gradually diminishing as it departs from it, which is not at all a reasonable supposition in the case of the stars. Some imagine the star to rotate, and one part of its surface to be more luminous than another, which appears a reasonable supposition; others suppose that a planet of large dimensions may revolve around the star and thus eclipse its light, which may or not be a reasonable supposition; but there is *no known* instance to us of a larger body revolving round a smaller one. If the telescope had been in use in the time of Brahe, he might have learned more about the star which he saw. Astronomers now are only waiting, in the hope that future researches, aided by the spectroscope and by more powerful and refined instruments, may throw fresh light on the whole subject. All the variable stars are being closely watched with this object in view.

CLUSTERS AND NEBULÆ.

Besides the stars and planets, we easily distinguish in the sky various groups called clusters or nebulæ. These are usually divided into *Irregular Groups*, more or less visible to the naked eye; *Clusters*, resolvable by good telescopes; and Nebulæ, many of which on account of their immense distance are irresolvable with the most powerful telescopes yet made. There are many examples of the first class, among which may be mentioned Præsepe or the Beehive, and the sword handle in Perseus, both of which are very beautiful telescopic objects. Very many objects of the second class have also been noted. In ordinary telescopes they appear for the most part as faint, cloudy masses; but as more powerful instruments are directed to them they begin to resolve into stars, apparently placed very close together. Every increase yet made in the power of the telescope has had the effect of resolving more of these clusters. As to shape and appearance these objects vary greatly,

some being globular or elliptical masses, while others present very strange forms. The great nebula in Orion, and the Dumb-bell nebula in Vulpecula, are examples of this. See an illustration of



Fig. 132. The Great Nebula in Orion.

the nebula in Orion in Figure 132; and of Dumb-bell Nebulæ Figures 133 and 134. Many, however, can only be partially resolved, parts of misty matter gradually fading away in the distance being distinguishable apart from the stars. No definite line can indeed be drawn to distinguish between clusters and nebulæ. So



Fig. 133.

great is the number of these objects that a catalogue of them compiled by Sir J. Herschel contains no less than 5,079. As to their character and distance we may derive some information from the

observations of Sir W. Herschel. Most of the nebulæ *yielded* to the Newtonian reflector of twenty feet focal distance, and twelve inches aperture, which plainly discovered them to be composed of

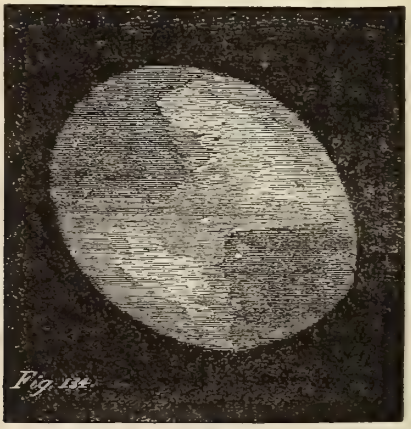


Fig. 134.

stars, or at least to contain stars, and show every other indication of their consisting of them entirely. "The nebulæ," says he, "are arranged into strata, and run on to a great length; and some of them I have been able to pursue, and to guess pretty well at their form and direction. It is probable enough that they may surround the whole starry sphere of the heavens, not unlike the Milky Way, which, undoubtedly, is nothing but a stratum of fixed stars. And as this latter immense starry bed is not of equal breadth or lustre in every part, nor runs on in one straight direction, but is curved and even divided into two streams along a very considerable portion of it, we may likewise expect the greatest variety in the strata of the clusters of the stars and nebulæ. One of these nebulous beds is so rich that in passing through a section of it in the time of only thirty-six minutes, I have detected no less than thirty-one nebulæ, all distinctly visible upon a fine blue sky. Their situation and shape, as well as condition, seem to denote the greatest variety imaginable. In another stratum, or perhaps a different branch of the former, I have seen double and treble nebulæ variously arranged; large ones with small seeming attendants; narrow but much extended lucid nebulæ, or bright dashes; some of the shape of a fan, resembling an electric brush issuing from a lucid point; others of the cometic shape, with a seeming nucleus in the centre, or like cloudy stars surrounded with a nebulous atmosphere. A different sort again contains a nebulosity of the milky kind, like that wonderful, inexplicable phenomenon about Theta Orionis; while others

shine with fainter mottled kind of light which denotes their being resolvable into stars." "In my late observations on nebulæ," says Sir W. Herschel, on another occasion, "I have found that I generally detected them in certain directions rather than in others; that the spaces preceding them were generally quite deprived of their stars, so as often to afford many fields without a single star in it; that the nebulæ generally appeared some time after among stars of a considerable size, and but seldom among very small stars; and when I came to one nebula I generally found several more in the neighborhood; that afterward a considerable time passed before I came to another parcel. These events being often repeated in different altitudes of my instrument, and some of them at considerable distances from each other, it occurred to me that the intermediate spaces between the sweeps might also contain nebulæ, and finding this to hold good more than once, I ventured to give notice to my assistant at the clock that I found myself on nebulous ground." The discoveries of the Herschels support the view that all the stars in the universe, so far at least as discernible by the telescope, are arranged into systems, which revolve round their respective centres; and that the stars are not dispersed at random in a kind of magnificent confusion through boundless space; and may likewise exist systematically in immense clusters throughout the regions of infinitude. Of course, we may certainly believe that each of these stars that appear in space or in the far distant nebulæ by the telescope, is itself, as our sun, the centre of a planetary system. The very object of a sun is to give light and heat to surrounding worlds, as well as to be their bond of attraction. All space is replenished at certain intervals with opaque globes, although they may never appear to our naked eye, nor yet happen within the view of our telescopes; the very idea of stable equilibrium in the universe teaches this; there is not a globe too many in one region of space, nor a globe less than enough in another region; nor does the law of gravitation allow us to suppose that even the smallest amount of matter can be in excess or in deficiency in the systems of the universe without having the universal order disarranged and the balance of equilibrium destroyed. If gravitation means anything it means this. Astronomers have descried the self-luminous globes, because they are of immense size and great brilliancy; but the investigation of opaque globes which exist in infinite numbers and of various sizes throughout space, and on which the sensitive and rational creatures of God exist, presents a noble field of labor for their eternal employment.

The nebulæ have great variety of forms; some are comparatively

bright, and others so obscure as to render it difficult to detect them in the field of view of the telescope, or to ascertain their shape. Some of them appear round, some oval, and others of a long elliptic shape;

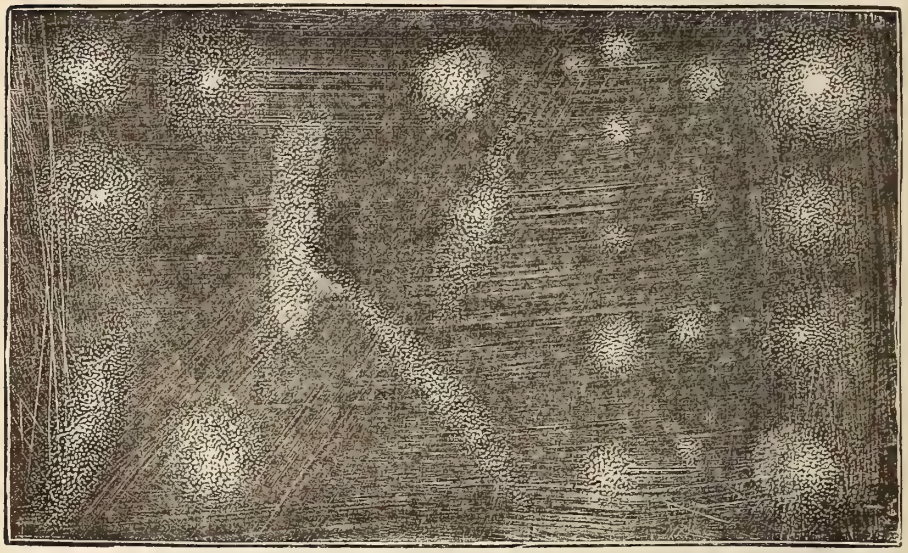


Fig. 135.

some exhibit an annular form like luminous rings, and others appear like an ellipsis with a dark space in the centre; but the greater number approximate to a roundish form. Of the 103 nebulæ inserted in Messer's catalogue eighteen were known at the time to consist of small stars; but Sir W. Herschel afterward found twenty-six more of them to consist purely of clusters of stars, eighteen of small stars, accompanied with nebulosity, and the remainder not resolvable into stars by the highest powers of his telescope. But it is evident these objects, though apparently small and obscure, must be systems of immense magnitude, when we take into consideration the vast distances at which they must be situated from our globe. As to this point, Sir W. Herschel speaks as follows: "My opinion of their size is grounded on the following observations: There are many round nebulæ of about five or six minutes in diameter, the stars of which I can see very distinctly; and on comparing them with the visual ray calculated from some of my long gauges, I suppose by the appearances of the small stars in these gauges that the centres of these round nebulæ may be 600 times the distance of Sirius from us." He then goes on to show that the stars in such nebulæ are probably twice as much condensed as those of the cluster in which we are placed: otherwise the centre of it would not be less than 6000 times

the distance of Sirius ; and that it is possibly much underrated by supposing it only 600 times the distance of that star. "Some of these round nebulæ have others near them perfectly similar in form,



Fig. 136.

These in figures 135 and 136 are Specimens of Nebulæ of various descriptions: Dumb-bell nebulæ; nebulæ representing the cluster to which our system belongs; diffused nebulæ; and nebulous stars.

color, and the distribution of stars, but of only half the diameter ; and the stars in them seem to be doubly crowded, and only at about half the distance from each other. They are indeed so small as not to be visible without the utmost attention. I suppose these miniature nebulæ to be at double the distance from the first. An instance equally remarkable and instructive, is a case where, in the neighborhood of two such nebulæ as have been mentioned, I met with a third

similar resolvable, but much smaller and fainter, nebula. The stars of it are no longer to be perceived; but a resemblance of color to the former two and its diminished size and light, may well permit us to place it at full twice the distance of the second, or about four or five times the distance of the first; and yet the nebulosity is not of the milky kind, nor is it so much as difficultly resolvable or colorless. Now, in a few of the extended nebulæ the light changes gradually, so as from the resolvable to approach the milky kind, which appears to me an indication that the milky light of nebulæ is owing to their much greater distance. A nebula, therefore, whose light is perfectly milky, cannot well be supposed to be at less than six or eight thousand times the distance of Sirius; and though the numbers here assumed are not to be taken otherwise than as very coarse estimates, yet an extended nebula which, in an oblique situation where it is possibly foreshortened by one-half, two-thirds, or three-fourths of its length, subtends a degree or more in diameter, cannot be otherwise than of wonderful magnitude, *and may well outvie our Milky Way in grandeur.*" It seems to be a very natural conclusion that the nebulæ which are perfectly similar in form, color, and the distribution of stars, but of only half the diameter of the other, and the stars doubly crowded, are about double the distance from the first. And if the distance of the larger nebulæ, whose stars are distinctly seen, be at least 600 times that of Sirius, as there seems reason to believe, then the distance of those which are only half the diameter must be 1200 times the distance of that star, that is, at the very least, 24,000,000,000,000,000, or twenty-four thousand billions of miles. But the nebulæ whose light is "perfectly milky," or so far removed from us that the stars of which they are composed cannot be separately distinguished, may be reasonably considered as at seven thousand times the distance of Sirius, or in number 140,000,000,000,000,000, or one hundred and forty thousand billions of miles; a distance indeed of which we cannot by any means form a distinct conception. A cannon-ball flying with its utmost velocity would require more than thirty-two thousand millions of years before it could move over an equal space. Since the distances of these nebulæ are so immensely great, and since those that are nearest us are found by actual observation to be composed of countless numbers of stars, leaving us no room to doubt that the most distant are also immense systems of the same character, how vast must be the magnitude, and how inexpressible the grandeur, of the numerous luminaries of which they are made up; and how immensely great the number of planetary bodies which revolve around them through boundless space!! From all the observations of Sir W. Herschel, he is of opinion that our Nebula,

or the Milky Way, as it may be termed, is not the most considerable within the range of vision ; and he points out some very remarkable nebulæ, which in his opinion cannot be less, but are probably *much larger*, than that of which our sun and system form a part.

Some idea of the extreme faintness of some of the distant nebulæ may be formed from the estimate which has been made that their light varies from $\frac{1}{1500}$th to $\frac{1}{2000}$th of that of a sperm candle a quarter of a mile distant. The nebulæ, as has been seen, are not distributed by any means uniformly over the surface of the sky, the greater number of them being situated in a zone crossing at right angles the Milky Way. In the constellation Virgo there is the greatest aggregation of them, one portion of it being known as the nebulous region of Virgo ; and in the southern hemisphere, nor far distant from the pole, are two brilliant cloud-like patches, called the Magellanic clouds. or Nubeculæ. These, when examined by the telescope, are found to be composed of stars, clusters, and nebulæ, collected together seemingly, but most probably in their order of distance. In appearance they somewhat resemble a portion of the Milky Way ; but they are quite distinct from it.

One of the most remarkable and extensive nebulæ in the heavens is that which is found in the constellation of Orion. In looking at that constellation, which makes a splendid appearance in the southern sky during the winter months, the first object which arrests one's attention is the three brilliant stars equidistant from each other in a straight line, which is called the belt of Orion. Immediately below these, hanging down as it were from the middle of the belt, three small stars at nearly equal distances are perceived, which are termed the sword of Orion. On directing the naked eye to the middle star of these three, the observer perceives something which has the appearance of a small star, but not well defined ; this is the great nebula of Orion, of which, however, one can form no definite conception without the aid of a good telescope. With a common pocket achromatic telescope, of a foot in length, the nebulosity may be plainly perceived ; but the higher the magnifying power, and the larger the aperture of the object-glass, the more brilliant and distinct does this phenomena appear, along with a number of small stars connected with it, which are quite invisible to the unassisted eye. Huygens was the first to discover this phenomena, and he gives the following description of it in his *Systema Saturnium :* " Astronomers place three stars close to each other in the sword of Orion ; and when I viewed the middlemost with a telescope, in the year 1656, there appeared in the place of that one twelve other stars among these three, that almost touch each other, and four more beside appeared

twinkling as through a cloud, so that the space about them seemed much brighter that the rest of the heavens, which, appearing wholly blackish by reason of the fair weather, was seen as through a certain opening, through which one had a free view into another region which was more enlightened. I have frequently observed the same appearance in the same place without any alteration ; so that it is likely that this wonder, whatever it may be in itself, has been there from all time ; but I never took notice to anything like it among the rest of the fixed stars." The reader will easily recognize the description in the figure of this nebula here presented which has been obtained, however, by means of a more perfect telescope than any that were in use in the time of Huygens. The following is Sir J. Herschel's description of this phenomenon : " I know not how to describe it better than by comparing it with a curdling liquid, or a surface strewed over with flocks of wool, or the breaking up of a mackerel sky, when the clouds of which it consists begin to assume a curious appearance. It is not very unlike the mottling of the sun's disc, only, if I may so express myself, the grain is much coarser and the intervals darker, and the floculi, instead of being generally round, are drawn into little wisps. They present, however, an appearance of having been composed of stars, and their aspect is altogether different from that of resolvable nebulæ. In the latter we fancy by glimpses that we see stars, or that could we strain our sight a little more we could see them ; but the former suggests no idea of stars, but rather something quite distinct from them." It is calculated that this wonderful nebula would fill a space twenty-nine millions of times larger than that contained within the orbit of Uranus ; so that, compared with it, the whole solar system is but an imperceptible point. It is also calculated that there are many nebulæ within the reach of the telescope which altogether surpass, in extent, in grandeur, and magnificence, the cluster to which our system belongs, or the Milky Way. And what of those that extend *in every direction in endless succession ! !*

Variable Nebulæ.

Some of the nebulæ, like some of the stars already referred to, are found to be variable. In October, 1852, Mr. Hind discovered a very small one with a star of the tenth magnitude near to it. This was afterwards observed, and its position noted, by other astronomers, but in 1861 it had entirely disappeared. Another nebula, which had frequently been observed as a well-defined compact cluster, was found in May, 1860, to be replaced by a seventh magnitude star.

After a few weeks the stellar appearance had ceased, and the cluster seemed to be resuming its usual form. The question as to the real constitution of the nebulæ is one which had given rise to much speculation. There is now little or no doubt expressed as to many of them being starry systems somewhat resembling our own cluster, but immensely removed from it. This belief rapidly gained ground as one after another of the nebulæ was resolved, by the application of more powerful telescopes; and it is very generally believed that all the telescopic nebulæ will ultimately be thus resolved. "It appears," says Humboldt, referring to Lord Rosse's Telescope, "from all the notices I have been able to collect from the works of distinguished astronomers long accustomed to the observation of nebulous spots, that out of a large number of nebulæ indiscriminately taken from among all the classes contained in the catalogue of 1833, and regarded as irresolvable, almost all have been perfectly resolved. Sir John Herschel maintains the same view as well in his opening address before the British Association at Cambridge in 1845 as in the *Outlines of Astronomy*, 1849, where he expresses himself as follows: "The magnificent reflecting telescope constructed by Lord Rosse, six feet in aperture, has resolved or rendered resolvable multitudes of nebulæ which had resisted all inferior powers. Although, therefore, nebulæ do exist which even in this powerful telescope appear *as* nebulæ without any sign of resolution, it may very reasonably be doubted whether there be really any essential physical distinction between nebulæ and clusters of stars." The hypothesis previously received was that the nebulæ consisted merely of masses of cloudlike matter. When the spectroscope was first directed to one of those objects, owing perhaps to the faintness of the light, no spectrum could be obtained, but merely a short luminous band. A second and third fainter bands were afterwards made out, and these lines were found to correspond with those indicative of nitrogen, hydrogen, and barium. These facts seem to point to the conclusion that the light emanated from incandescent gaseous matter.

The Nebular Hypothesis.

Before the invention of the telescope, and for some time after its invention, while it was yet comparatively imperfect, the nebulæ were supposed to be vast, formless masses of vapory matter scattered here and there throughout space. Hence arose the "nebular hypothesis," as it is termed, according to which the sun and our whole system of planets originally existed in the form of a mass of nebulous matter filling a space greatly exceeding that contained within

the orbit of Uranus. This vast mass the theory supposed was set in rotation, and, as it gradually cooled, became more and more condensed, until at length some part assumed the liquid form, and would then form a ring surrounding the central mass. This ring would, of course, be in rotation, and, as it would scarcely be of uniform thickness throughout, would soon break up; the matter composing it would then be collected into a ball still rotating round the centre, and at the same time revolving on its own axis. In this way the hypothesis had it that all the planets were in turn formed, and they, by centrifugal force, threw off their satellites and rings, till at length the system became complete, and the planets cooled down into solid masses.

Such is the "nebular hypothesis," and in it is seen what absurd and groundless theories ignorance gives rise to among men. It displays a singular deficiency, which is usually characteristic of myths, in that it neglects to account for the origin of comets, a large number of which have long been recognized as permanent members of our system, moving periodically in well defined orbits. Nor does it at all consist with the direction of the motion of the satellites of Uranus and Neptune being *retrograde* to that of all the other members of our system, a fact which, in the mind of astronomers, is now pretty well established. With all the telescopic nebulæ that have been resolved into stars, and with the fact patent that only distance prevents any of them from being thus resolved into stars and all other revolving bodies, men henceforth will have no need of forming such groundless theories with respect to an origin for the visible world; nor, with all the light which is now afforded them of its probable permanence, will people have an excuse for any more believing the groundless theories of hasty speculators with respect to it. The question of an origin or destiny of the cosmos they should leave to God, who only can know of such things, and be content with giving a proper attendance to their known duties.

Sketch of the History of Astronomy.

We think it proper here, and of interest to our readers, to give them a sketch of the history of astronomy. This science was cultivated in very early times. The question, however, as to what nations first cultivated this science, cannot be definitely answered. But it seems probable that the Chaldæans were the first who, within the range of history, made systematic observations of the stars. The path of the sun among the fixed stars was very early

discovered, and these stars were arranged into the twelve constellations known as the Signs of the Zodiac, long before the historical era. Many of the other constellations were also named, but some were afterwards altered by the Greeks and Romans; and even in modern times a few additions have been made, as, for instance, the Shield of Sobieski and the Heart of Charles I. The zodiacal signs are sometimes supposed to have been connected with the rural occupations of the ancients. Thus, the cluster of stars through which the sun seemed to pass in spring was called Aries, or the Ram. Leo, the lion, had been considered symbolical of the rays of the summer sun. Libra, the balance, tells of the period of equal day and night. Scorpio, the Scorpion, of unhealthiness, of autumn; while Aquarius, the waterman, and Pisces, the fishes, betoken the rains and floods of winter. The names, with their significations given to these zodiacal constellations in the order of the signs, are as follows: Aries, the ram; Taurus, the bull; Gemini, the twins; Cancer, the crab; Leo, the lion; Virgo, the virgin; Libra, the balance; Scorpio, the scorpion; Sagittarius, the bowman; Capricornus, the goat's-horn; Aquarius, the waterman; Pisces, the fishes. It must not be supposed that any resemblance can be traced between the shape marked out by the stars and the figures they are supposed to represent. The original idea seems to have been to map out the sky into convenient portions for examination, and at the same time to immortalize certain real or mythical heroes; but as the system became adopted universally, it has been retained to the present day, and serves as a ready means for distinguishing and registering the stars. Among the most noticeable of celestial phenomena are solar and lunar eclipses, and these, of course, attracted the attention of early astronomers, and at length the true cause of them was discovered. A careful record appears to have been kept of them, so that the *Saros*, or Chaldæan period was discovered. This is a period of 18 years and 11 days, or 223 lunar months, at the expiration of which the moon enters again upon its former track in the heavens, and thus the same eclipses are, as it were, repeated.

The Egyptians seem to have made some progress in astronomy at as early a period as the Chaldæans. Their pyramids indicate their skill in practical astronomy, as they are all so situated that their several sides point very exactly to the four cardinal points, east, west, north, and south. The system adopted by the Egyptians was the following: They conceived that the planets Mercury and Venus revolved like satellites round the sun, their orbits being carried along with him in his revolution round the earth. They supposed the earth immovable, as the centre of the system, and the other celes-

tial bodies to turn round the same centre; first the moon; then the sun, about which they supposed Mercury and Venus to revolve; next the planet Mars; then Jupiter; next Saturn; and lastly the sphere of the fixed stars.

The Chinese date their astronomical knowledge from Fohi, who they say was the first of their kings; and supposed by some of the Moderns, erroneously enough, to be Noah, who, tradition says, journeyed with his children in the direction of China, about the time of the building of Babel's tower.

The wonder and anxiety with which eclipses were witnessed by the Ancients, may be easily imagined, and when an astronomer ventured to predict an eclipse, and his prediction was verified he must have been looked upon as little short of divine. The first instance we have on record in which this was actually done, was in the year 610 B. C., when Thales, a Milesian, the father of astronomical science among the Greeks, foretold an eclipse of the sun. It is probable, however, that the same thing had been done repeatedly before by the Chaldæans and others. With Thales the true history of astronomy begins. But the Greeks were not distinguished for any great proficiency in the natural sciences. We find here and there shrewd guesses and faint gleams of truth; but it is generally mixed up with fanciful speculations, instead of being supported by careful observation and reasoning. They seem, for the most part, to have started with certain principles which had no existence but in their imagination; as, for example, that the earth must be in the centre of the universe, and that, since the circle was the perfection of shape, all the motions of the heavenly bodies must be in circles. Observing the phenomena of the sky, and the apparent motions of the sun and stars, they formed cumbrous and complicated theoretical systems, endeavoring to reconcile these appearances with their theories. Hence we find all the involved mysteries of transparent wheels, revolving one within the other, and carrying with them the planets and stars, of cycles and epicycles, and of crystal spheres in ceaseless rotation, which Plotemy and his followers were ever planning, and ever altering.

We must, however, glance at a few of the names which stand prominently forward in the history of the science. Anaxagoras and Pythagoras were two of the Greek philosophers who succeeded Thales, and they appear to have had much more accurate views than most of their day. They taught *that* the sun is in the centre of the universe; *that* the earth is globular and moves round the sun; *that* Venus is the morning as well as the evening star; *that* the moon reflects the sun's rays and is inhabited; *that* the stars are worlds,

and *that* comets are wandering stars. These celebrated philosophers flourished about 500 B. C., and their system is nearly the same that was adopted or restored by Copernicus in the 15th century A. D., or about 2,000 years after them. Their doctrines do not appear to have been at all generally received in their time, and were condemned by those in power as being impious. Anaxagoras was sentenced to death on account of his philosophical views ; but his sentence was afterwards, through the influence of a friend, commuted to banishment for life.

Hipparchus, born at Nice in Bythinia, in the second century B. C., appears to have made considerable advances in the cultivation of every branch of astronomy. He gave up all attempts at framing a system for the universe, and occupied himself in carefully watching and recording the motions of the sun and planets. The movements of the sun especially occupied his persevering attention, and in this way he made a very close approximation to the true length of the year; and the accuracy of his observations is very remarkable when we consider the imperfectness of the instruments he had to use. He also observed the irregularities of the rate of the sun's motion, and determined in what part of its course its speed was greatest, and thus ascertained that if the motion of the sun was uniform the earth was not situated in the centre of its orbit.

Another thing for which the name of Hipparchus is memorable, is a catalogue of fixed stars which he formed in order that future astronomers might be able to detect any alteration in their position or number. He appears to have been led to undertake this task by the appearance of a new star, and though the work of carefully ascertaining and noting each star was a work requiring great labor and patience, he persevered and completed a list which contained 1081 stars. In the progress of this work he made one very important discovery. On comparing the place assigned by him to a star in the constellation Virgo with that determined by some distinguished astronomers nearly two hundred years previously, he found a difference of two degrees in its longitude. He then made similar comparisons, where it was possible, with respect to other stars, and found the same change in their position. It was then evident that all the stars must have moved forward, or else that the points from which the measurements were taken must have moved backwards. This phenomenon is known as the precession of the equinoxes; the reason of it was discovered by Sir Isaac Newton.

Another idea for which we are indebted to Hipparchus was that of representing the stars on an artificial globe; and of marking the

positions of places on the terrestrial globe by means of lines of latitude and longitude.

Nicias, one of the followers of Hipparchus, is said to have advanced further than his preceptor, and started an hypothesis that the apparent changes in the sky were caused by a daily revolution of the earth. The idea was, however, not supported by any arguments, and was lost sight of for ages.

The only other ancient astronomer we shall refer to in this sketch is Ptolemy, who was born in Pelusium, in Egypt, in the year 69, B.C. He was a very learned scholar for his time, not only in astronomy, but in mathematics and geography. Having carefully examined the observations of Hipparchus and others, he at length promulgated a system known as the Ptolemaic, which, though since proved to be quite erroneous, accounted so well for all known celestial phenomena, that its errors could not, with the instruments then in use, be detected; and accordingly it was universally received till the age of Copernicus, and even then it was long before it was entirely discarded. According to this system the earth is immovable in the centre of the universe, and the planets move round it, in the following order: first, the Moon, then Mercury and Venus, the Sun, Mars, Jupiter, Saturn, and beyond all these the firmament of the fixed stars; all of which were represented as moving round the earth every twenty-four hours. To account for the apparent irregularities in their motions he introduced what he termed epicycles, which will be understood by reference to the figure where E represents the earth, and A B C the orbit in which the planet should move; but instead of this he supposed that there was a *point* C moving in this orbit, and that the planet P moved round this point in a small circular orbit or epicycle. The combination of these two motions explained the irregularities. This system was afterwards rendered much more complicated by the alterations introduced by the successors of Ptolemy; and, notwithstanding its absurdity and its contrariety to the appearances of the universe, it continued in vogue, even among the learned, for the space of more than fourteen centuries, or, until the beginning of the sixteenth century. During this period a few individuals appeared who cultivated astronomy, as Almansor, Almanon, and others among the Arabians; Ulugh Beigh, a prince of Tartary; Alhazen, an Arab, in Spain; Alphonso X., King of Castile; Roger Bacon, and several others. These all adopted the Ptolemaic system.

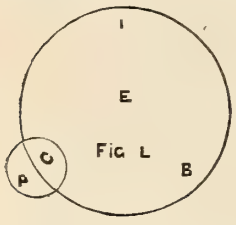


Fig. 1.

About the year 1472 was born Nicholas Copernicus, who, leaving

all the speculations of former observers, studied for himself the motions of the celestial bodies. He first examined all the ancient observations, and then commenced for himself to closely and systematically examine the heavens. He compared the actual places occupied by the sun and planets with those which, according to former theories, they ought to occupy, and thus obtained a better knowledge of the irregularities and variations than any astronomers before his time. He continued this course for many years, and at length arrived at the conclusion that Mercury and Venus revolved around the sun instead of round the earth. He gradually extended his reasonings further, and at length started his celebrated theory, which regarded the sun as the centre of the system, with the earth and all the other planets all revolving in regular order around it. By this grand idea all the complicated and bewildering schemes which had occupied and puzzled so many observers were at one stroke swept away. Instead of the cumbrous machinery of crystal spheres revolving one within the other, the utmost simplicity is seen to characterize his system; order and regularity take the place of almost inextricable confusion; and as the observer transfers his station of observation from the earth to the sun, the planets which had previously appeared to wander on in ever-varying directions among the stars, now retracing their steps, and then, after an interval of rest, starting again, are seen to be steadily moving on in elliptic orbits around the central luminary of the system. The movements of the inferior planets, Mercury and Venus; the reason why they were never seen very far removed from the sun; the retrograde motions of the planets, and their irregular movements were all clearly explained by this grand yet simple theory.

We can with difficulty recognize the prejudice with which such a scheme was received; the earth was by it degraded from its central place, and reduced to the rank of a planet; and that which men had been accustomed to regard as fixed and immovable was now declared to be in rapid motion around the sun, and at the same time to be ever whirling round its own axis. He seems to have himself foreseen the effects of this prejudice, and hence he waited long before he fully accepted the theory, and still longer before he ventured to make it public. This system Copernicus understood to have been that of Pythagoras, broached 500 years before the Christian era, and hence he wrote a treatise in confirmation of it, entitled "Astronomy restored, or the Revolution of the Heavenly Bodies." This system was at first violently opposed both by the vulgar, the dignitaries of the Romish Church, and pretended philosophers, as contrary both to sense, reason, and Scripture, and many of its abettors were subjected

to violent persecutions. Copernicus himself seems to have had a great degree of deference to the Church and consideration for the prejudices by which he was encompassed; and the dedication of his work almost takes the form of an apology for venturing to suggest such views, and his ideas were put forward rather in the shape of an hypothesis than of a definite system. It must not be supposed that Copernicus formed a complete system to account for all the motions of the planets; his life was too short for the task. His work was to indicate the true theory of the universe, leaving it for others to trace out more accurately the exact curves in which the planets moved, and to ascertain their various distances, magnitudes, and rates of motion. It was afterwards ably supported by the writings of Kepler, Galileo, Gassendi, Hevelius, Huygens, Cassini, and other distinguished astronomers, by whom its principles were demonstrated, and established on a firm and stable basis.

This system was especially demonstrated by Kepler, whom we have had occasion to mention before, and who has sometimes been called the "legislator of the heavens," as it was he who first discovered the laws by which the movements of the heavenly bodies are governed.

Almost contemporary with Kepler there lived another great philosopher and astronomer, named Galileo, chiefly memorable now as being the first to construct the astronomical telescope, though his powers were such as would have ensured his renown, even had this great discovery not been made by him. He was born in 1564, and became a teacher of philosophy at Pisa. Here he soon rendered himself remarkable by his strenuous opposition to some of the teachings of Aristotle, which he proved by experiment to be incorrect. This brought upon him much odium, and even persecution; but though he thus opposed the received views on mechanical subjects, he continued for some time a stickler for the Ptolemaic system, and even refused to hear any explanations of the views and theories of Copernicus. After a while, however, he saw the folly of this, and commenced a careful enquiry, the result of which was that he became an ardent supporter of the new system.

In the early part of the 17th century, Galileo heard of a discovery which had been made by an instrument maker in Holland, by which distant objects could be made distinctly visible. He therefore made every enquiry, and at last succeeded in making a telescope which possessed a magnifying power of 30. This he first directed towards the moon, and here he at once detected many points of resemblance to the earth; he perceived rugged mountainous parts, and lofty elevations; level plains likewise, which were at first called

seas. He made a greater discovery, however, when on the 7th of January, 1610, he directed his magic tube toward the planet Jupiter. Not only did it present to him a brilliant disc, streaked across with dark bands, but close to it he perceived three small stars almost in a straight line. These he at first supposed to be merely fixed stars; on the following evening, however, when he again directed the telescope to the planet, he observed that they had moved along with it, and had also changed their positions with relation to each other. Here, then, was evidently some new discovery; and Galileo waited most anxiously the recurrence of a clear evening to enable him to decide the matter. The next view satisfied him that they were in reality moons accompanying the planet; and further, he found that there were four of them.

Intense excitement was created among astronomers by this discovery, some urging the absurdity of increasing the number of the heavenly bodies beyond the sacred number seven, and others angry at the man who attempted to depose the earth from its position of dignity by asserting that Jupiter had four satellites, while the earth had only one. It is said that some even refused to look through the instrument which made such unheard-of revelations. But the followers of Copernicus welcomed the discovery as presenting a miniature model of the solar system, and thus upholding their theory. The telescope soon made other discoveries. By its aid Galileo found that Venus presented the same phases as the moon, appearing at times as a narrow crescent, and then gradually becoming more and more illuminated, till at last it shone with an almost circular disc. It could not, however, be seen with a complete disc, as at such a time the earth must be in the part of its orbit exactly opposite to Venus, which would, therefore, appear in conjunction with the sun, and be lost in his brightness. This was a very important discovery, as it afforded a strong confirmation of the truth of the Copernican system. In fact, an objection had been raised against this system on the ground that these phases were not seen as they should be if the theory were true. The telescope, however, soon settled this difficulty, and silenced these objections. He made another discovery when he examined the planet Saturn. Instead of appearing with a circular disc, like the other heavenly bodies, he found it to be elongated, as if handles were affixed to each side of it. Owing to the imperfections of his telescope, Galileo failed to discover that this appearance was caused by a large ring, which completely encircled it, and he imagined that the planet was in reality composed of three smaller ones. Both these discoveries were, according to the practice of scientific men in those days, made known in anagrams,

only intelligible to those who possessed the key. It is thus seen what an important instrument the telescope proved to be, for not only these, but almost all celestial discoveries since have been made by its use; and now nearly all our astronomical instruments consist either wholly or in a part of a telescope. It is thus seen also to what important results the accident of a child playing with two spectacle glasses has led; for such an accident, it is said, first originated the idea of the telescope.

The career of Galileo, though for the most part a splendid one, was somewhat marred near its close. The prominent position he had taken as an upholder and promulgator of the new doctrines had attracted the attention of the papal authorities, who regarded his views as heretical, and demanded of him a public recantation of his belief in the motion of the earth. This he reluctantly gave, though he is related to have said immediately afterwards: "It moves for all that." This was in several ways a sad scene! Not long after this, in 1642, he died. In the same year was born the illustrious Sir Isaac Newton, a man more celebrated than either Galileo or Kepler, and whom we have taken occasion to speak of before. From this time onward we come across the names of so many prominent astronomers that we can but refer to a few of the more celebrated. About the year 1658 Huygens, a celebrated mathematician and astronomer in Holland, using telescopes of a much larger size than those of Galileo, discovered that the phenomena connected with Saturn was in reality an immense ring surrounding that planet, and, as he thought, thirty thousand miles distant from every part of it. He at the same time discovered the fourth satellite of Saturn; and in these and other observations he used telescopes of his own construction of 12, 23, and even 100 feet in length. Napier had, some 40 years before this, invented logarithms; and thus reduced the work of weeks to days or even to hours; and a little later reflecting telescopes were introduced by Gregory. Some time afterward Cassini, a French astronomer, discovered the first, second, third, and fifth satellites of Saturn, and the periods of the rotation of Mars and Venus.

Flamstead was another celebrated astronomer, almost contemporary with Newton, and was the first that was called Astronomer Royal. The origin of the observatory of Greenwich, and of this post, was in the year 1695. Great inconvenience had been experienced in long voyages from the want of some method of determining the longitude in which a vessel was at any time, but at length a plan was proposed which was substantially the same as one that is in use at the present time. This consisted in noticing very accurately the position of the moon with respect to neighboring fixed stars. As the earth moves

on in its path this position seems to vary. If then we have an accurate list of these "lunar distances" as they are termed, calculated for any given meridian of longitude, we shall be able to tell by observation what the time is at that meridian. We can then compare this with the local time of the place where we are, and in this way ascertain the longitude; for since 15° of longitude make a difference of one hour in the time, we have only to allow 15° for every hour of difference in the times, and we shall at once tell the longitude. The method of solving this problem usually employed now is merely to compare a good chronometer, set to the time of the observatory, with the local time; but it was not till a comparatively recent period that chronometers were made accurate enough for this purpose, and even now it is a great advantage to be able to check them occasionally by means of lunar observations.

When this plan of ascertaining longitudes was proposed an objection was made to it on the ground that the tables of the positions of the moon and fixed stars which then existed were not sufficiently accurate to be of any practical use for this purpose. It was therefore decided that an observatory should be built and sustained with this especial end in view, and Flamstead was appointed astronomer to the observatory. This observatory was erected, and the post established in 1675, and from that time to the present some of the ablest astronomers have resided in it, and an *almost uninterrupted series of observations has been maintained.* These have constantly proved in many different ways to be of the greatest practical utility. One main duty connected with this Observatory is the preparation of the "Nautical Almanac." This is an almanac published three or four years in advance, and containing a large number of important astronomical tables. The position of the moon with respect to any of the fixed stars is shown for every third hour throughout the year. The position of the various planets is also exhibited, as well as the eclipses and occultations of Jupiter's satellites, and many similar tables which are useful to the navigator in ascertaining his position, as well as to the astronomer. The reason of its early publication is in order that captains about to set sail on long voyages may have it to take with them.

Though this observatory was thus founded by the British Government it was some time before it was provided with instruments worthy of the place: Flamstead having to use his own for a considerable period. This astronomer was a very painstaking observer; and it appears to have been to his accurate observations that Newton was greatly indebted in many of his investigations.

Halley succeeded Flamstead in his position at the Observatory.

He was for some time an intimate friend of Newton, and made several long journeys in the interests of science. An expedition was fitted out under his charge to observe and catalogue those stars in the southern hemisphere which are invisible with us; and a list of nearly 400 was compiled. This, however, was by no means a complete one, as the station chosen for observation, St. Helena, was in many respects unfavorable. After Newton had made the discovery that bodies under the joint influence of a centrifugal force and the attraction of a central body might revolve in a hyperbola or parabola, as well as in an ellipse, the appearance of a comet was anxiously awaited in order that, if possible, it might be ascertained whether these bodies moved in fixed orbits of either of these forms, or whether they were merely stray wanderers dashing swiftly past our system, and then forever lost in the deep abyss of space. In the year 1680, this desire was gratified by the appearance of a very remarkable comet, which attracted great attention, both by its brilliancy and the rapidity with which it travelled. Halley gave his earnest attention to the observation of this body; he accurately noticed and recorded its motion, and he discovered that a parabolic orbit could be constructed which would account for all its movements. Its eccentricity was, however, so great that a period of 600 years must elapse before it could again return to the sun.

After this comet had passed away Halley still devoted his attention to the subject, carefully enquiring into the recorded appearance of different comets, with a view to ascertain whether the intervals between the appearances of any of the most noticeable ones appeared in any way uniform. Shortly after this, in the year 1682, another large comet appeared, and Halley now with the information he already acquired was in a better position to enquire into its motion. He accordingly did this, and after a time announced that he had calculated its orbit, and found that it moved in an ellipse, its aphelion distance being nearly 3,500,000,000 miles; also that its period was about seventy-five years. He then looked back through his list of comets, and found that he could distinctly trace it back for a considerable period. This so far confirmed his calculations that he distinctly foretold its reappearance about the close of the year 1758; and so convinced was he of the truth of this prediction that he requested, since he could not live to witness its return, that when it was fulfilled people might remember it was an Englishman who had first traced the path and prophesied the return of a comet.

Long before the date assigned for the return of this comet, which began now to be known as Halley's, he himself had passed away. Astronomers were, however, on the watch, and some French astrono-

mers, in particular, investigated most carefully and industriously the retarding effect which would be produced on the comet by the attraction of the planets, and as a result of their enquiries announced that it would be slightly delayed by the action of Saturn and Jupiter, so that its perihelion passage might be expected on the 13th of April, 1759. Just at the close of the previous year, a wanderer was detected by an amateur, and as it approached nearer, it proved to be the very one, whose return had been for so long a time foretold; and though its period of revolution was upwards of three quarters of a century, yet the observations and calculations were so accurate, that it actually passed the sun within less than three weeks of the predicted day. On the occasion of the next return of this comet, which took place in 1835, not only was the date, but the place of its appearance pointed out, and on a large telescope being turned to that spot, the comet was seen as a faint cloudy object. We see thus that Halley's comet was now to be reckoned as one of the members of our system, whose motions are fully understood. Its next return may be expected in the year 1912.

Bradley succeeded Halley as professor of astronomy at Greenwich. The great discovery which has rendered his name memorable, is that of the *aberration* of the fixed stars. The aberration of the stars is a small change of place in the heavens, which, in consequence of the earth's revolution in its orbit round the sun, they appear to describe in the course of a year, an ellipse or circle, the greatest diameter of which is about 40″. These apparent changes of place, occasioned by the annual motion of the earth, are to a certain extent common to all the celestial orbs, and are only the more perceptible and striking in the case of the fixed stars. In consequence of this annual revolution of the earth round the sun, the stars appear, according as they are situated in the plane of the ecliptic or in its poles, or somewhere between them, in the first case to deviate in a straight line to the right or left of their true place; in the second, to describe a circle or something nearly approaching to it around their true place; and in the third, an ellipse about that point which observation determines to be their real situation. The angle contained between the axis of the telescope and a line drawn to the true place of the star, which angle, in consequence of the earth's motion, must be continually changing, is what is called its angle of aberration. The aberration of the stars appears to afford a sensible and direct proof of the motion of the earth in its orbit round the sun. If the earth were not in motion, no such effect could take place. If the earth were at rest, the star would be seen in the place in which it really is, never seeming to alter its position; but the earth being

in motion with its present velocity, the telescope is necessarily inclined a little in order to see the star, and it is the real annual orbitual motion of the earth that causes the apparent motion of the star, in describing such a figure in the course of our year.

Dr. Bradley also took an active part in the reform of the calendar, which had by this time varied a little from the true seasons; and, in order to rectify the error, joined in recommending that eleven days should be struck out of the month of September, 1752, so that the day that would be the fourth of that month, was called the fourteenth. This measure was very unpopular at the time, and Bradley came in for a large share of popular dislike on this account; and his death, which occurred a few days afterwards, was, by many of the ignorant, regarded as a mark of Divine displeasure at his presumption in thus daring to interfere with the regular order of the calendar. This alteration has since been effected in nearly all countries, except Russia, where dates are still reckoned according to the old style, and are now thirteen days behind those used in the rest of Europe.

We may now just glance at the services which have been rendered to astronomy by another of those men whose names will ever stand foremost in its annals, Sir William Herschel. He was a man of somewhat humble origin and unable to procure a telescope sufficiently powerful by which to understand some of the mysteries of the heavens. He had, however, an intense desire to do so, and having acquired a knowledge of the principles of the telescope set himself to construct one. In this, he succeeded well; and he is said to have ground altogether upwards of 500 specula for reflecting telescopes. In March, 1781, when he was examining the sky by the aid of one of these instruments, he came upon a small star, which as he examined it with higher powers seemed to exhibit a disc. He accordingly took an accurate note of its position so as to watch it again on another evening. When he again examined it, it was at once clear that it had changed its position. The idea, however, of a new planet does not appear to all to have entered into his mind, so accustomed had every one been to regard Saturn as the extreme planet of our system; accordingly, he set it down as a new and strange comet which he had discovered, and announced it as such. Its motions, however, soon showed that, unlike the comets, it moved in an orbit of but small eccentricity, and it was then found to be a planet revolving in an orbit outside of Saturn. This planet he named *Georgium Sidus* in honor of King George III, who had been his patron, but the name was afterwards altered to Herschel, and finally to Uranus, by which name it is now known.

Soon afterwards he constructed a much larger telescope, the speculum of which was four feet in diameter, and the tube forty feet long. The space-penetrating power of this instrument was reckoned at 194, that is, it could enable the observer to see into space 194 times as great a distance as could the unaided eye. With this he discovered two more satellites of the planet Saturn ; six out of the number that revolve around Uranus were also detected by him ; so that he made a very large addition to the number of the heavenly bodies then known. But his most important discoveries were made about the stars and nebulæ. A large number of double and triple stars were first observed by him and carefully noted, with a view of determining, if possible, whether any of them exhibited any sensible parallax. The Milky Way was also resolved by the power of his magnificent telescope, and thus some idea was formed of the size and character of the cluster of which our whole system forms but an insignificant fraction.

Sir John Herschel, the son of this distinguished man, who died recently, displayed a similar love for astronomy. In conjunction with Sir J. South he produced a catalogue of 380 double stars, whose distances and angles of position they had determined. Sir J. Herschel afterward produced a list of upwards of 3300 double and triple stars from his own solitary observations, accompanied with all the micrometrical measurements ; and he also undertook a journey to the Cape of Good Hope for the purpose of making observations in the southern hemisphere of the heavens, and made many interesting discoveries both of stars and nebulæ. Other astronomers we have named in the other places in connection with certain discoveries, and there are still other distinguished ones which we would wish our space permitted us to mention. There is, however, an astronomical instrument which we may refer to before closing this historical sketch of the science, as having been found of great use in determining many difficult points. This is a reflecting telescope constructed by the late Earl Rosse, the speculum of which is six feet in diameter, and its focal length fifty-four feet. Its higher powers, however, owing to the amount of moisture in the atmosphere, can only be used at rare intervals. This instrument, though not so clear in its definitions as telescopes of lesser magnitude, such as the large one of Herschel, may still fairly be considered as one of the wonders of the age.

CONCLUSION OF PART FIRST.

From all the facts which the science we have now reviewed has revealed to us, both in relation to the world in which we dwell, and

to all the other luminous and non-luminous worlds which surround us, in the heavens, on all sides, infinitely, it is evident that astronomy intimately and necessarily pertains to the demonstration of the subject which it is our endeavor to elucidate, the subject of Creator and Cosmos. Confined as man is to this terraqueous globe, and to only a limited portion of it, he could have no worthy idea of the great universe, or of the glorious worlds which surround him, did not the earth itself afford him the means, in the telescope, of enlarging his views with respect to them. This noble instrument, as well as the microscope, by which we become acquainted with the invisible world in the other direction, is made of what are regarded as the humblest of earthly materials; still, but for their use we might be to-day in the position in which the people of 1500 or 2000 years ago were, having no definite knowledge, and constantly changing our views and groundless theories, as to the system of the universe and Infinite existence.

There is nothing more evident than that man is of the same nature in every respect as the world in which he dwells, the media in which he lives and moves. He is, in fact, as any other creature that exists in it, a part of it. It is quite as evident, from what astronomy and other sciences teach us, that the earth is of the same nature as are all of those glorious worlds by which it is surrounded. It is, in fact, if we may so express it, a part of the universal whole. We see all these orbs, co-existent in space, in mutual dependence on each other, as are the members of the human body; yea, and more so, for the human body may lose one or more of its members; but one of those heavenly bodies, a member of the great universe, cannot be lost, not a particle of it. They all universally obey the same laws proceeding from that simple principle of gravitation, a principle which not only *preserves their existence in the forms in which they are, but also governs their motions and confines them exactly to their own places.* We see that the principles of light and heat and gravitation act exactly alike, and equally, with respect to them all. This effect is abundantly sufficient to teach us that they are all of the same general substance; but of this fact we have sensible evidence by being made, as it were, intimately acquainted with the surfaces of those that are nearest us by means of the telescope, and with the nature and constitution of those that are far distant from us by means of the colors of their light, and *spectrum analysis.* They are all the same general substance, the same spirit pervades the whole; they are all *individual members of the infinite whole.* When we walk abroad and see a laborer digging a ditch or a pit in the earth, the thought sometimes strikes us that the substance on which that laborer is operating is

just the kind of substance of which we ourselves are composed, and to which we shall one day, perhaps ere long, return, as it has happened to an infinity of our predecessors of mankind. And yet how few there are of mankind to whom such a thought ever occurs in its proper sense; men are accustomed to look upon such things as altogether beneath their notice; and not to allow such thoughts for a moment to occupy their mind. They look upon the earth as a dead thing, devoid of life; and yet it is full of the principle of life; there is not the minutest particle of lifeless matter in the whole earth, nor in the universe; yea the earth itself, as well as all worlds, is all existing in life. We who are present are accustomed to think of the earth as a dark, cheerless abode, and to wish that our lot had been to live in some of those bright worlds we see surrounding us; but were we situated on the moon, or even on the planet Venus or Mars, we should behold what a glorious orb our earth appears from thence; it partakes of that glory which we have seen to characterize the other heavenly orbs; being of the same nature, it is no less intrinsically good and glorious than they. Why then should we be discontented with our abode? Why should we wish to transfer our residence from it to other worlds which are not superior to it in kind? Why should we be afraid when we die to have our bodies return to it, in hopes that they may again arise superior in scale of being to what they now are? We should always cherish the strongest faith and hope that we shall live intelligently and happily after death, and should live to be good and to do good. We should use the gifts and privileges which the world affords us, as not abusing them; we should obtain them and use them in the best possible manner; we should in fact live in such a way that we should never be afraid to die; and thus we should in reality find that our world would present to us a heavenly aspect, a delightful abode with which we would be contented, and which we would not be desirous of exchanging for another. We should endeavor to attain, while living here, the first resurrection, that is, the resurrection, or new birth, from the death of sin to the life of righteousness. We should crucify the natural man, with its affections and lusts, denying ourselves the inordinate pleasures of the world and all ungodliness, and living soberly, righteously, and honestly in this sphere of our existence. We invite all to take this course, and we promise them, thus doing, thus living, they will experience a heavenly peace and happiness in themselves such as the followers of natural and worldly pleasures shall not experience; and they shall not be afraid to die when their time comes to die. They will come to know God, and God will always support and comfort them, and be a near and true friend to

them, in whatever condition they may be in life; they will also be taught of God, and great shall be their peace!

Blessed and holy are they that have part in the first resurrection; on such the second death shall have no power; even the approach of their natural death they shall not fear; it will present no terrors to them; resting in the faithfulness and goodness of the Lord, their minds are stayed in perfect peace; they shall be priests unto God, and shall reign with Christ forever!

It will give us pleasure if our readers have had their knowledge increased, or have had some of their suspicions on some things, which have hitherto been dark and evanescent in their minds, changed into well-grounded and intelligent conclusions by the perusal of this First Part of our work. When they have perused its Second Part, in which we propose to, in some degree, remove the veil of mystery which has hitherto overspread religious subjects, and which in past, ages has induced so much error and superstition among mankind, they will be better prepared to judge of the whole subject of the book, and of the conclusions which have been so far demonstrated concerning the subject of the Cosmos. Our work for mankind is certainly such as may be called a labor of love, and "perfect love casteth out fear" as well as precludes the idea of compulsion; the setting forth right conclusions concerning the subjects under consideration was with us a matter of moral principle; nor was the idea once entertained either in its plan or preparation of pleasing either publisher or reader at the expense of the truth. We only expect, then, that due respect will be given to demonstration, and that whether this is so clear as to amount to conviction, or partly to amount to conviction, the matter under consideration will be discussed freely and in the proper spirit.

IS SCIENCE RECONCILABLE WITH RELIGION?

A DISCOURSE which epitomizes the fundamental principles of this book, and sets forth concisely the author's understanding and development of those principles:—

In commencing to discuss this subject "Is science reconcilable with Religion?" I may, first, state by way of definition that a Science is a collection of Natural Principles or Laws which, if applied or used by art in certain ways, will invariably produce certain effects. The Science, therefore, is the What, the Art is the How: the Science is the knowledge, the Art is how to apply or use it in order that the results may follow. In the progress of the discussion I may give you some hints as to what religion is not; and then, from what I may say after, leave you to understand for yourselves what religion is. I have, however, under the idea of religion to deal to a good extent with the Science of Theology, as the belief in the existence of an omnipresent and omniscient God is the foundation of all true religion. Secondly, whatever I may be able to do in proving Science reconcilable with religion I wish it understood that I do not attempt to prove all Scientists reconcilable to religion.

In our days much is said about the progress of Science and the discoveries of Science. The class of professional Scientists although in the main they do not speak with disrespect of religion nor live openly immoral lives yet cannot be said to be champions of religion, that is, they in the main do not interfere with it or with the book from which the popular religious views of Europe and America have so long been drawn. From first to last of them they appear to have been loath to undertake the Bible as if they understood themselves not to have been born or fitted for its interpretation, and if we except Newton who not only wrote the *Principia* but interpreted the prophecies of Revelation we find but few of those professionals who undertook the Scriptures. They may, 'tis true, have understood that the pursuit of one branch of learning is quite enough for one class of men, leaving theology to be understood and taught by another class whom making this latter branch their specialty they considered more competent for that work.

It cannot be denied that in the period since the discovery of America by Columbus, Science has made its greatest advances; also the useful arts or those which tend to abridge manual or animal labor, and if discovery and application advance at an equal pace for one hundred years to come with that at which they have advanced

for the last century we can now hardly begin to estimate the effects upon the population of the earth at the end of that time. Nor can it be denied that the opening up of America to the masses of Europe has tended to greater freedom of religious thought, to greater development of religious views, and to the origination of religious sects and systems in which these views are embodied and enunciated. This diversity of opinions doubtless existed in the old world but latent, for the people of Europe were for long ages restrained by law from developing them publicly, however ardently they might have cherished them, if they contradicted even in sentiment the established systems of religion. This freedom of religious thought tends to freedom and earnestness of inquiry, which, if carried out in the proper spirit as well in the field of science as of theology, tends to correctness of understanding and to development of mind and thence to the energizing and invigorating of the masses. This then must be productive of beneficial effects for the body is subject to and obeys the mind, and the mass of individuals with well-regulated, intelligent, and active minds may be expected to be a better-ordered and more effectual, in short, a more energetic and useful mass for themselves, for the church, and for the state, than the mass of individuals of inactive minds that are led and governed by one controlling mind. I do not here intend to say that this correctness of thought and this development of mind are attainable at once on the act of emancipation from the slavery of system to religious freedom, but, I do say, that like the complete education of a youth they are attainable gradually; and this state of education or gradual educational progression which I have indicated is, I believe, the state in which Protestantism with its innumerable religious opinions and the free tending elements of Catholicism are to-day. This gradually progressive state is pertinently indicated in that prophecy of the book of Revelation, referring to the age we are now passing through, which represents the angel with one foot in the water and the other on the land, in the act, as it were, of passing over to the firm and dry land of settled opinions and definite understanding in religion.

It appears to me plain that the denial of religious freedom by governments is not only unjust in itself, but somewhat inconsistent with the fact of the omnipresence of Deity, which shows the absurdity of one man or one corporation of men arrogating to himself or to itself all knowledge concerning him or his will. The most, then, that governments should do or should be expected to do in such case is to give their moral support to that system of religion which unites in itself simplicity with truth and earnestness, and appears, all things considered, to be the best. But this, you will perceive,

leaves complete religious freedom to the masses. As that is not religion by whatever name called which fosters a malignant or persecuting spirit, neither can that be called religion which tends to libertinism and immorality, to laziness and the neglect of active duties which are too often the concomitants of socialism, or to the derangement of moral order or the suppression of the instinct of true Christian love and affection in any way. The object of secular government is partly to preserve order among the masses of the people; its right should, therefore, be recognized to preserve order in a religious corporation or assembly, when the latter transgresses the laws of the state, which in most cases are quite minute with respect to the moral obligations of the individual.

The religious freedom of the age in which we live allows to scientists the privilege of pursuing their investigations, of developing their theories, and of expressing their opinions as freely as they please; and the results to which they come are taken up and used by religion *pro* or *con* as these results may be thought to favor or disfavor itself. Hence, science has of late years made great advances, the theories propounded have been freely and widely discussed, and they are reckoned low, indeed, in the scale of intelligence who are not able to speak generally concerning the Sciences, their advances, and discoveries.

But referring to my main subject, "Is Science reconcilable with Religion?" I may here state without fear of being proved false in the assertion that there is nothing in the Bible which if properly interpreted shows them to be irreconcilable. The mistake which Scientists who have read the Bible as well as imperfect theologians have made was in too often giving a wrong interpretation to the Scriptures, applying a literal interpretation to figurative language, and sometimes conversely, and thus necessitating that the records contradict themselves. But if the Bible when properly interpreted, will not throughout contradict itself nor contradict Science, this interpretation will, perhaps, be in the main somewhat different from what it received in the times of the Kings Henry, James, and Charles, and even in the time when many of you were young, when theologians especially of certain schools were so unyielding in support of their assertions, in many cases, of what might be called their "hard sayings," and so terribly impatient of contradiction. There is too much of this inflexibility characteristic of the old schools of theology to-day, and in our own free country we may now and then meet with an inflexible specimen of the profession theological. Yet the difference now between the European and the American schools of theology appears to me considerable, the latter not being held so rigidly by

creed or formula or thought of Sacerdotal Caste as the former, but displaying, in the main, as the mass of the American people, the free democratic American manners, and uniting in their pulpit discourses a pertinence, practicality, earnestness, and energy productive of excellent effects. They appear, too, to have begun clearly to recognize that their mission is to be life-imparters, and that to this end in certain cases, as to effect a reformation from a state of moral degradation and self-imposed wretchedness in individuals and communities they are to bring not peace on earth but a sword. Neither is education and intelligence at such a low ebb amongst us as to allow that the minister should be blamed for the performance of his duties; nor does our broad and promising country with all its avenues of labor, of service, and of advancement, where every one may rightfully feel full of hope and honorable aspiration, where all belong to the same Caste; neither does this broad country, I say, necessitate that the minister should refrain from associating with the people, who may often have something to communicate to him even on theology which it will be well for him to know, through fear of his losing Caste or position or the people's confidence or respect by such association.

The time was in our fatherland when society was so bound up by the thought of Caste and order as to divide the people of the same country into many societies, each jealous of its own assumed rights and privileges, and each, perhaps, looking with contempt upon those below it in the scale or with envy upon those still higher up. This state of things still subsists in the old world, but methinks the bands of society are much less tightly drawn, and the thought of Caste much less predominant than they have been in the past, and this liberalizing change has been effected there principally, I believe, through the agency of America and its free institutions.

If the discovery of America is due to the Church through the agency of miracles or otherwise I have not yet learned the fact. Why, it has been asked, did not the church by its miraculous powers cause America to have been discovered before, and thus have presented its broad lands to the millions of the old world starving and downtrodden for long ages?

The church, 'tis true, was quite militant upon land until it carried its banners to the shores of the Baltic, the Caspian and the Euphrates, but it did not cast its omniscient eye over the broad Atlantic, it appears, nor descry in the distance the millions yet to be subjected to its peaceful sway. The church had no navy for exploring expeditions, it was no mariner, but depended rather upon the secular power for the discovery and conquest of new lands, and when this

was done, it, like a faithful housewife, set itself to organizing and housekeeping.

Thank God that we are now favored with this broad, and free, and enlightened country to which since its discovery the outcast of Europe, who had dared to think for himself and speak as he thought, has often hitherto directed his steps in order to find a place in which to live in freedom and peace. I say all this, however, without intending any unfriendliness toward the land of my fathers, the British Nation, which, if we except its aristocratic institution whose interests appear contrary to those of the masses of the people, is, aside from America, the freest country in the world, and to whose sons and their descendants the progress of America hitherto is in a very large degree attributable. Nor have I the least idea that the inhabitants of the British empire now, or the inhabitants of any other nation, are responsible for any evil deeds that may have been done by their ancestors or are on any such account to be objects of my hatred or envy. But it is well known that the free institutions of America have reacted upon the established institutions of Europe and necessitated a liberalizing modification of their regime to which the institution of the Sacerdotal order there is not an exception, and which has wrought good for all concerned as even a large body of the clergy there will allow.

Although religion and Science may go hand in hand and mutually assist each other if they so will, still theology considered as a Science exists independent of Science commonly so called, and this latter exists independent of theology, nor are they found to contradict each other if the proper understanding be had on both sides.

While Geology, although not a Science properly so called, proves unmistakably that this planet has existed for countless ages much as to phenomena as we now see it to exist, it does not disprove the Scriptural passage if rightly interpreted that, "In the beginning God created the Heavens and the Earth." The key to the interpretation of this passage is doubtless to be found in the following passages: "In the beginning was the word and the word was with God and the word was God." "All things were made by him and without him was not anything made that was made." "The word became flesh and dwelt among us and we beheld his glory, &c.;" that is to say, this word was the spirit of Christ or of the God Man, in whom of all the creatures is pre-eminently represented and developed the *Logos* or the reason with speech. By Man I mean man as to form, appearance, &c., as we now see him to exist and in all these respects man is a creature. But, contrary to the hypothesis of Mr. Darwin in this particular, I have no cause to assume that the reason or head domina-

tion which now characterizes man was at any period joined to and supported by any other form than such as we see man now to possess. Therefore, this substantial form of the word must "in the beginning" and before the creation referred to have had a substratum or that by which to be supported while creating all things that were created. We do, however, believe the world now exists; we see it to exist, and if we think this to be the substratum for man now, may we not think it to have been his substratum before and while creating all things that were created? All our laws are made, all our moral obligations entered into, and all our courthouses and penitentiaries built in accordance with our actual experience of the reality of the world; it therefore behooves men to live according to reason and law for their present welfare and for their present and future welfare to worship God who is a Spirit in spirit and in truth. But still I may be allowed to think that our ancient Saxon fathers were wiser than many of our modern sages when they applied to the mental principle or rather to the reason the term *understanding*. The demonstrations of the Science of Astronomy now made are based upon the associated laws of gravitation and of motion enunciated by Sir Isaac Newton and Kepler, the former born in A. D. 1642, and the latter just preceding him in time, and upon the law of *Inertia* demonstrated in the Science of Mechanics. The law of gravitation is stated as follows: "*Every particle of matter in the universe attracts every other particle with a force proportioned to the amount of matter in each and decreasing inversely as the squares of their distances.*" The law of Inertia is, that "*bodies at rest will remain at rest and bodies in motion will continue moving in straight lines if not acted on by controlling forces external to themselves.*" The reason the heavenly bodies do not move in straight lines is because of their attraction for each other deflecting them mutually into curved lines, such as circles, ellipses, parabolas, and hyperbolas in which the moons, planets, and comets move. As to the laws of motion deduced by Kepler, I think it unnecessary to state them here but they can be found in almost any treatise on Astronomy, as that in the present work.

These associated laws, however, were mathematically demonstrated by Sir Isaac Newton in his *Principia*, a work which is the basis of our present system or science of Astronomy, and any imperfections which might have been left in the demonstrations by Newton at his death were carefully attended to and the system perfected by his astronomical coadjutors and successors, especially by Flamstead, Halley, and Bradley, who were the first three astronomical professors at the observatory at Greenwich.

It should be borne in mind that the Science of Astronomy does

not propose to account for the origin of the spheres or of their motions, but taking these as it finds them, and following out its own principles and laws, it accounts admirably well for the celestial phenomena.

If some of the points embraced in this Science, such for example as the parallelism of the earth's axis during its journey round the sun, the revolution of the earth upon nothing, the earth's motion round its axis being in a contrary direction to that in which it moves round the sun, and its motion toward the constellation Hercules being in a still different direction, that the moon makes one revolution on its axis while making one revolution round the earth while it is always seen to present the same hemisphere to the earth;—if some of these points, I say, do not satisfy the reason of some moderns, who have never thoroughly mastered the Science, this is no proof against its correctness; for that Sir Isaac Newton and his associates in founding the system had all the principles, bearings, and relations of the Science plainly comprehended in their mind, there can be no reasonable doubt. If not, it may be asked, whence comes the unvarying correctness of the results. But that they had even the capabilities of the Science for application to future discoveries in the solar system plainly comprehended in their mind appears evident in many after results, notably in the discovery of the planet Neptune, which may be called the greatest triumph of the Science, an almost infallible proof of its correctness. The laws of the Science embrace and govern not only all the planets, satellites, and comets known in the solar system in the time of its founders but all that might afterwards be discovered in it. They also embrace and govern all the celestial bodies in all space, being universal in their application and operation. It appears to me that before we allow *that* Science which accounts so well for the celestial phenomena to be set aside or even disputed, we should require another or others of the genius and ability of Newton to disprove it.

The Ptolemaic system of Astronomy invented by Ptolemy, an Egyptian Greek, who was born in the year 69 B. C. was that according to which the celestial phenomena were calculated before the age of Kepler and Newton. This system regarded the earth as at rest in the centre of the universe with all the other heavenly bodies, sun, moon and stars, revolving around it once a day. It was thought to account well for the celestial phenomena, and it was not till the time of Copernicus and Galileo, or say one century before the birth of Newton, that it began to be shown to be erroneous. It is not impossible that the Newtonian system may in time be replaced by another, probably by a modification* of itself.

*Long observation of the effects of the precession of the equinoxes, alluded to on page 301, may possibly render this convenient.

As to forms, motions, &c., the universe gives to all the same general impression. If our mind was differently constituted we should, no doubt, perceive it differently. I do not know that the mind of man was ever constituted differently than it is now; if not, men have always had the same general impression of the external world. The conclusion, then, to which we have come thus far is that man's general impression or idea of the universe is from age to age the same or differing almost imperceptibly,* and his theories to account for the celestial phenomena do, from mental causes, change in time.

To see, or to perceive, or to conceive, as well as to make, is, in a sense, to create. We know nothing whatever as to the origin of the forms, motions, &c., of the earth and the celestial bodies. Science has nothing to do with such origins, and theory or speculation should never be confounded with nor mistaken for Science. Time spent in the investigation of such origins is, in my opinion, time lost. Our life's experience show us the continual origination of existences, animal, vegetable, and mineral, in obedience to a continually developing creative law, which we always see in operation. This is, also, in a proper sense creation; with this creation and with those of our own powers and perceptive faculties we shall have to be content or take other supposed creations on faith.

Matter is, in general terms, defined to be everything which is recognizable by our senses. It is supposed to be made up of infinitely small particles called atoms, which are accounted so infinitely minute as to be altogether beyond the recognition of our senses. These are supposed, also, to be indestructible by any other power than that which has brought them into being. All things are composed of these ultimate elements and all things are consequently reducible into these elements. Hence, and from other considerations, it is known that all the globes and all the objects in space are reducible to the state of an invisible gas, a gas doubtless many times rarer than the air we breathe; that is, they are of a nature reducible, but so far as we know are not practically reducible. This, therefore, is literal spirit, for spirit from the Latin word *Spirare*, to breathe, is that which we breathe, or breath. Hence, all matter is spirit, and, conversely, all spirit is matter. The ultimate elements of matter we cannot possibly recognize, and yet all things we do recognize are made up of these irrecognizable elements. This is the reason why matter is said to be infinitely divisible. You see, therefore, matter and spirit are the same substance in different states, and we cannot conceive anything but what is or is of matter. There are what are called simple substances and compound substances in nature. The simple substances thus far discovered are about 63 in number, and these, with

*A very remarkable variation of phenomena, such, for example, if we could conceive it, as the sun, after a certain period, say 10,700 years hence, or when the node, 0° *Aries*, was entering 181 *Libra*, it having gone through full half a retrogradation, remaining a double day above the horizon and then traveling in the opposite direction and setting in the east, which would make this the first day of another great period: such a conceivable phenomenon, I say, would of itself conceivably change or

those that may exist undiscovered, form all the compound substances in our earth and atmosphere. When we say that the ultimate elements of matter are wholly irrecognizable by our senses, we do not mean that such elements do not exist; what we mean is that such elements, though they be real, can be with us only creatures of the imagination. There are some very ingenious theorists who make these atoms (infinitely minute as they are), to be like the soap bubble, and filled with electricity. Consequently, according to them, everything is but a different phase of electricity; but who will undertake to explain that? There are some, also, who claim that spirit cannot possibly be conceived or explained; consequently, according to them, there can be no literal spirit, only imaginary spirit. Now, God is a Spirit, but that he is merely an imaginary spirit I do not understand, for even my faith will not rest on the merely imaginary, but requires for a basis the substantial and real; but, although from his infinite nature he is altogether inconceivable by us, he is yet a real spirit, as his omnipresence attests.

The theory of the atoms or ultimate elements of matter is the basis of the science of chemistry, which is as demonstrable as is that of Astronomy. While contentedly leaving to chemistry its elementary atoms, which are as necessary to it as is the theory of gravitation to Astronomy, I remark, that the originator and substratum of the electricity contained in the atomic soap-bubble, must be the *Ego* or *understanding* which is infinite and inconceivable.

Affinity is a term of Chemistry applied to that force by virtue of which two or more simple substances combine to form a compound body. This compound exhibits properties different from those of the combining components, and is called a chemical compound. Some simple substances display for each other a greater affinity than do others. The laws of chemistry or chemical affinity, and of crystallization, which come within the general law of mutual attraction established by Newton, when that is fully explained, destroy the supposition of anything in the way of progressive creation taking place by chance.

A knowledge of the science of Light and of the Science of colors shows that without light there could be no colors, and that without colors, even if light existed without them, there would be no objects distinguishable, or if they could by their forms be distinguished it must be with great difficulty and perplexity. Light is therefore, in part, the producer of colors, and the difference in colors serves, in part, to produce objects. From experiments carried on at great length of late years, it has been concluded that light as well as heat is a "mode of motion" arising from the violent agitation of the ultimate elements of the luminous body in their seeking equilibrium by

modify our present system of astronomy. If this subject should be considered at all, due weight should be given to the permanency of the astronomical phenomena during the historical observation, and to the tendency to stability of the angle of obliquity of the ecliptic. But such a supposition, if really conceivable, must make the sun to revolve in an orbit between Mercury and Mars, and around a common orbital center with the planets, to which, however, the earth's orbital center must be considered a little eccentric. See foot-note to page 301.

chemical separation or combination : and we know that the phenomenon of light as distant from the luminous body, which is its source, is simply the image of the luminous body infinitely multiplied in all directions and visible distances from it. The light of the sun is accounted for by scientists in two different ways, some supposing that it arises from combustion of the sun's substance, and others that it arises from a magneto-electric state of the sun's atmosphere, so that on this supposition it might be regarded as somewhat of the nature of a continuous surpassingly brilliant northern light with us. Neither of these suppositions it might be shown necessitate the sun's entire consumption in time, for, according to the laws of gravitation, a particle of the sun's substance, even though continually in a state of change, can never go beyond the sphere of his attraction so as to be entirely lost to him; and as to the second supposition, we can hardly consider an electro-magnetic state of the sun's atmosphere as destructive of his substance.

While white is produced by the union of all colors, black is no color, or only the absence of color caused by the substance which appears black *absorbing* the colored rays which fall upon it. The different colored rays in their order on the spectrum are red, orange, yellow, green, blue, indigo, and violet, that is, red is least and violet most refracted. It was Sir Isaac Newton that made the discovery not only that white light is a compound of rays of various kinds, having different colors and indices of refraction, but that all the substances that appear colored when illuminated with white light derive their colors only from a kind of "Natural Selection," that is, the substances according to their nature may reflect certain colored rays and absorb or transmit others. He concluded, however, from different experiments on the same subject that *every substance in nature, provided it be reduced to the requisite degree of thinness, is transparent.* This is, also, plain from the fact now generally understood, that all substances in nature are, by the application of a sufficient degree of heat, reducible to a transparent, invisible gas. Many transparent mediæ reflect one color and transmit another ; gold-leaf, for example, reflects the yellow, but by holding it up against a strong light it is found to transmit a sort of green color.

By modern scientists who have experimented at great length upon the science of colors and complementary colors, it has been concluded with probability that *what we name colors with their different hues are only the various affection of the optic nerve by a greater or less quantity of light radiating from a focal point in an imperfect reflector.* All this will be better understood by reference to the operations of the science of light and of the science of colors in treatises on those

sciences. From what I have said and will say one can acquire some faint idea of the construction of the mind for perception and judgment. The five senses furnish the reason with all the material or data (the eye performing a very important part), and the reason disposes, judges, and determines. They perceive form, color, motion or rest, weight, hardness or softness, density or rarity, many or few, diversity or sameness, light, shade or darkness, up or down, east or west, &c. The ear perceives language addressed to it in words, or the eye as found in books or in nature; the palate perceives the different tastes, the nose the different smells, and the touch the different degrees of hardness or softness, of intensity of cold or heat and the like; and all these objects are instantly presented to the reason or understanding which disposes and judges of them. Hence the senses are the channels through which we have knowledge of and hold converse with the external world. That light, heat, electricity and gravitation all act according to the same law—their force decreasing as the square of their distance from the centres of action increases —proves them all to proceed from the same source. The source of this action is the understanding, the operation is universal, and the centres of action infinite.

There have been some who have undertaken to demonstrate that there is no external world, that the things we see are only ideal, the real and inconceivable being their substratum. This may seem hard to reconcile with the freedom of the creatures, especially with the free agency of man, which enables him to do or not to do as he may choose. "If," it may be said, "as according to this theory, and in the ordinary sense of the word idea, "the world be only ideal, there is but the creator and conceiver of ideas or God and man existing, and we find the Creator arrayed against himself in all directions." In reply to this, it may be said, that an idea as commonly understood amounts to nothing as compared with the real which it represents, as a shadow is nothing as compared with the substance; nor is an inert body any more than a bare idea of much account to resist when subjected to a controlling exercise of physical force. In the actual world we find most results of any worth to be brought about by oppositions. That man, for example, will never amount to much in any walk of life, who does not encounter and skilfully and patiently overcome opposition. If the man do not encounter opposition, but glides along smoothly all through life, it is almost a certain indication that, at least, any good effects he may produce will not be wide-spreading. I do not here intimate that men should court opposition or that they should not rather avoid it; what I do mean to say is that if they pursue the line of their duty according to common sense and uprightness the opposition will present itself at times in the course of things, do

what they will to avoid it. If you go into a mill you will find all the cogs and wheels and all the mill-stones going in opposition to each other for the accomplishment of a certain purpose, namely, that of grinding. Will you say it was "Nature" that made each mouth a mill for the same purpose? In the individual human experience there is such an opposition of flesh to spirit that even a Paul finds it difficult always to obey his higher self.

There is an opposition in all things on and in the earth for the production of certain results in nature, and it is the opposite mutual attractions of the heavenly bodies that keep them in their uniform motions and invariably confined to their proper orbits. Now, no man will say it is the Creator that acts in opposition to himself, for the Creator is one and cannot be supposed to act against himself. No, it is the creatures, whether these be intelligent and free or otherwise, which act in opposition to each other, and very often, you know, the free and intelligent creatures act unwisely in such oppositions, as in the case of an unjust war carried on, or of two men trying to settle a disputed point and winding up in a mutual quarrel. Now, we can hardly think the Creator, who is infinitely wise, would act thus unwisely.

I think the foregoing argument must show the attempt to conceive of the Creator much more difficult than the idealistic theory as understood by some hasty speakers might leave it to be, and also show the idea of pantheism to be nonsensical.

The Creator being infinite, while omnipresent, is inconceivable; it is the creatures that are conceivable.

There are others, and very many too, I meet with them every day, who tell me they do not believe there is a God; they say they do not believe that anything but "nature" exists, and all *such* like talk. A man died lately in the state of Illinois who before his death had ordered that there should be no religious service performed at his funeral, only that they should consign his body to "nature" from whence he had sprung. This order was rigidly adhered to at the funeral, and in a short oration his body was consigned to "nature," his assumed mother. Now, when one speaks of nature one speaks only of created things as related to each other, for one can conceive only of created things as related to each other, but cannot conceive the real or unconditioned which is the substratum underlying and supporting the phenomena of the creatures. This real or absolute we may call the *Ego* or *Ego sum*, it is infinite, without body, parts or passions, beyond the recognition of our senses and inconceivable. Although all the creatures are related to each other and more or less independent of each other still they are continually dependent for their existence upon their

Creator who is also their substratum and supporter. The omnipresence of the Creator, notwithstanding the freedom and independence of each other of the creatures, which doubtless is for wise purposes, and which is real (for man is a free and responsible agent as all law assumes, and has great power given him over all other creatures), shows unmistakably that the phenomena of the creatures can only be, though in some way unexplainable by us, different presentations of the Ego to itself, or, speaking properly otherwise, *præsentationes differentes rationis universalis sibi.*

But what I have stated will help to show that men who say there is no God but "nature," rarely if ever understand or consider what they mean by nature. Even the contraries of up and down in the universe will show that when you are consigning the body of your friend to the tomb you know not but that you are at that moment putting him up on high, for I can prove satisfactorily to you that there is neither up nor down as regards the universe, whatever you may now think concerning it.

But to make the distinction in your mind between the Creator and the creature, I may say that in such case the body is returned to the dust from whence it came, and the spirit returns to God who gave it.

It may be again allowed me to suggest that theory should never be mistaken for science. As the theory of the origin of species and their growth through different modifications of form, some of which were wholly dissimilar to the present one, might be confuted by very simple facts, such for example as the presence of busy ant-communities in all quarters and countries of the globe, which could hardly be supposed to arrive at the same general state as to forms, habits, &c., in all these countries through different "modifications of form," or the "migration of species;" so, I think, the nebular hypothesis may be confuted, not only by all the phenomena of nature and the late discoveries of the telescope, but by the simple fact that one digs for water wherever he builds his house and rarely fails to find that fluid, which with many other fluids the Creator has made provision for in the earth's interior.

But, although science knows nothing as to the origin of the celestial spheres, nothing as to a beginning for their motions, nothing as to the origin of the terrestrial species, nor anything as to a destruction or annihilation of the universe, still, I think, we may be well content to leave all such like questions in the keeping of the Allwise, until it may please him to make other revelations to us concerning his Cosmos in such manner as pleases him, and to live in peace and love before him, always seeking to attain to the likeness

and righteousness of his son, in the manner set before us in the Gospels. Thus living, not only science but scientists will be reconcilable with religion.

All science is experimental or demonstrable by experiment. Religion is also in its way, experimental as is freely professed by most of the religious sects and sectaries. The science in which we are most concerned in the discussion of this subject, it is well known, is astronomy, and although this science is eminently an experimental one I think religion is, in its way, no less experimental. It is no proof against religion being experimental that scientists who have never fulfilled its conditions, or faithless professors who have no correct understanding of theology, say it is not. In the case of a problem in any experimental science certain conditions have to be fulfilled in order that certain results may be produced. In the same manner, speaking religiously, he that cometh to God must believe that God is, and that he is a rewarder of all those that diligently seek him by living a consistently Godly life. Now, he who has a correct understanding of theology has not a shadow of doubt in his mind that God exists, that the nature of God is to be just and good, and that, therefore, he is a rewarder of all those who seek him in truth and sincerity.

There are millions who will attest from their own experience the efficacy of prayer.

Prayer may not always be answered just in the way the suppliant expects or wishes, and yet it may be answered. Petitions offered up jointly by many for the same purpose are, according to the New Testament teaching, very likely to be answered, and hence one of the good purposes of religious associations. The people who pray, however, do not always keep sufficiently in mind that the nature of God is to be just as well as good: this thought as well as the thought of God's infinite wisdom should temper them in their expectations, and should make them content with whatever he sends them and with the way in which he sends it.

While the science of Astronomy fulfils its mission without giving any account as to the origin of the globes or of their motions, the Christian religion (that religion with which we are here most concerned) does not start out in this way, but exhibits in a book the account of its origin. The Christian system of religion was meant to supplant the old Jewish system as to everything, and it was introduced to the world somewhat after the manner of the former, at least so far as recorded miracles and moral obligations were concerned. In the New Testament, as in the old, we are of course to interpret literal language literally, and figurative language figuratively.

in order that the records may not contradict themselves, or rather in order to interpret them consistently with themselves.

Even if a fair and impartial critical examination of the four Gospels and the book of the Acts should prove those records to be in the main allegorical, or at least allegorical as to their main subject, their design would evidently yet be to show *the possibility of man's capableness for elevation to moral and spiritual perfection in holiness and Godlikeness, the real God-Man being seen set forth in the ideal.* Nor could the moral code set forth in these records be ever understood as any other than historical. *It is possible, however, that faith might find sufficient reason to accept the Gospels as historical by reposing itself upon the probability of a historical nucleus as the primary basis of the allegorical elaboration, even when the eye of the competent historical critic could not find sufficient reason to conclude them as being such.*

Paul may not have seen Jesus Christ in the flesh nor yet his literal cross, but the eye of faith in the firm believer, who reposes himself upon the supposed historical nucleus aforesaid, may perhaps see him even more clearly than the eye of sense could have done. Even faith, I believe, must have some base in reality in order to make it effectual. The competent critic may be at the same time eminently religious, and, if so, he will have a more definite, correct and, to him, satisfactory view of the God-Man, of his ascent in history, and of the literary character and object of the New Testament records than the unscholarly though zealous religionist may be expected to have. The church is always the realm of faith, and the profession of a reasonable, religious, and holy faith, provided it be such, is always accounted legitimate.

The religionist almost always understands the creation "in the beginning" to have reference to globes of land and water; rarely suspecting that the Heavens and the earth which were created may rather have reference to the church and those without its pale which were "in the beginning" of moral order in certain communities or nations established. He never does, however, think of accounting for the origin of the space which those globes occupy and revolve in. Perhaps our modern evolutionists, who appear to be full-fledged fowls now-a-days soaring high above all old modes of thought or forms of belief, would inform us whether, whence or when space has been evolved. This doctrine of evolution, it appears to me, will not stand in the case of an evolution of the celestial bodies or of their motions or of the space they revolve in; it can only assert what we all know, namely, that change is continually taking place in the material universe. It appears, however, to make better head-way

from its research in geology in accounting for the upgrowth of the terrestrial species. Mr. Darwin, however, went considerably too far in the particular of his zig-zag ancestry for man. By the term religionist I mean no disparagement of any particular mode of thought or set of opinions. I use that term in the same way as I would use the term Scientist or any other good English word. Men are of slightly different constitutions of mind as well as of body: we scarcely can account for or be supposed to understand each the other's daily spiritual and mental experience: if men find comfort and joy in certain modes of thought and tenets of belief, even if, in my opinion, their understanding of the matter be not altogether correct, I would be sorry to deprive them of the source of their joy if I could not replace it with a more intelligent and satisfactory source or cause of rejoicing and comfort. Such an one believes such a thing to be so because his Bible tells him it is so, and he finds comfort perhaps in his belief without attempting to rack his brain with critical investigations as to meaning. It may be possible, however, to give an interpretation to the passage different from that which he gives it, which may satisfy him better and be more correct.

Astronomy takes the Cosmos as it finds it to be and carries out its purposes by means of the laws which it has deduced as to how nature is and acts. True religion takes the records concerning the creation of the world and the founding of the old and the new Church as it finds them and considers them amply sufficient when rightly interpreted to meet the spiritual wants and requirements of mankind. The records of the Old and the New Testament are there and have their proper meaning whenever it be discovered, notwithstanding the opinion or act of some critics, who when they do not find them or portions of them to be historical throw them aside as having no meaning; nor is there one of their recorded miracles, even if these should be considered of literal interpretation, half so miraculous as is this inexpressibly wonderful universe with which we are surrounded.

Man is born with a religious instinct within him, and the after contemplation of his own being and of the great universe which surrounds him increases and heightens the religious sentiment. True religion has as firm a basis to rest on for the belief in the existence of an omnipresent, omniscient, just, and good God as has Astronomy or any other of the experimental natural Sciences for the validity of its claims. The intelligent and true religionist does not trouble himself much as to the question of the origin of the material universe much less as to that of its destruction; but having become satisfied

of the meaning of the sacred records which generally (I will not say always in particular cases) has reference to the world of mankind or the moral world rather than the material, he is assured that the *second birth* or the new creation by regeneration of the heart and of the life spoken of in "John" is a much more important subject of consideration for him than any possible creation of a material world is there considered to be.

Sir Isaac Newton, the principal founder of the Science of Astronomy would be a fair exemplar for scientific men to follow in regard to their estimation of religion. He lived the life of a self-denying godly man, wrote largely on religious subjects, and died a sincere believer in religion. Religion was with him an experimental matter, and the pure Science of theology was by him, I believe, in his old age, pretty fairly understood.

The name of Gravitation is a name arbitrarily but properly enough given to the principle which attracts, but who has ever understood or could conceive that principle? The phenomena of the creatures, their different degrees of freedom and independence of each other are recognized, but the attraction of gravitation attests and illustrates the omnipresence and omnipotence of Deity. The condition and actual existence of antipodes illustrates the fact that the subject of Astronomy is as little fit to be ridiculed as is that of Religion. Religion and Astronomy alike defy the sneer of the Sophist and the worldly-wise.

The universal instinct and sentiment in man declares in favor of religion and demonstrates the validity of a lively faith in the benevolence and beneficence of the invisible and omnipresent Deity. This universal religious sentiment may be formulated into creeds and confessions of faith, or it may exist lively in the breast of the individual who does not profess or recognize any creed. In order to be truly religious it is not necessary that one profess a Pharisaic cast-iron creed, but it is necessary that one live a consistently godly life. Charity suffereth long and is kind: Charity covereth a multitude of sins: Love worketh no ill to his neighbor: Love is the fulfilling of the law: Do justly, and love mercy, and walk humbly with thy God, are all good mottos to be remembered and practised.

It appears to me that people of different sects or of the same sect, or even Scientists and Religionists, or professors and non-professors of religion should never grow angry with each other, more especially concerning any religious question. Religion is no fit subject to become angry about, and the religious history of the past, if men have not read it amiss, should warn them against harboring a malignant and bitter spirit in religious questions, and incite them to the culti-

vation of the spirit of meekness and sobriety, and to the practice of the life of active godliness, which is that also of true manliness, indicated in the New Testament.

If religion consisted in names and creeds it might often in the past have been inquired "Is religion reconcilable with religion?" when the different Christian sects were so violently opposed to each other as to seem to forget that they were all but different branches of the same Christian trunk. True religion, however, does not stand in the names of sects or of leaders, but it is a thing of the spirit, of the heart, and of the daily life, and consequently there is but one true religion and that the same in all sects, and non-sectaries. Now, as God is one and cannot be supposed to contradict or oppose himself, so true religion, being one, cannot act in opposition to itself. When, therefore, we hear of a religious war, a religious quarrel, religious rancor, or theological pride, we hear nothing at all about true religion, but about a spirit and a life diametrically opposite to it.

True religion, therefore, being of such a simple nature as I have indicated, cannot contradict Science, for even Scientists may be true Religionists; and its fruits distinguish it wherever it exists.

For the mutual help and advancement of society religiously organized, religious societies are found to be the most effectual means. It would be difficult to find unanimity in any assembly with respect to any given subject, arising from different degrees of education and different habits of thought in individuals, and, therefore, in a religious association it has been found better for the individuals to exercise a mutual forbearance and condescension toward each other. One should not consider that he is descending from any dignity if for a mutually good understanding on any subject one condescends to give or receive explanation. Some there are who have a distinguishing peculiarity of inquiring from others their religious opinions, especially as to particular points of belief or doctrine as they call it. Such inquiry is for the most part simply to gratify the curiosity of the questioner, and when they become impertinent or insolent in their questionings they may well be dismissed without having their curiosity gratified with an answer. After a few such dismissals they will likely begin to learn better manners, and nobody can fairly sympathize with them in their disappointment since, as with a pettish child, the course thus taken with them is for their good. This has no reference to a fair question which in general deserves a like answer (although in ordinary cases it need not be answered if one does not wish), but one's private opinions or understanding of religion one should not be pressed to communicate against one's will. In an organ-

ized religious association the pastor is, of course, supposed to be more clear on all religious subjects than those of less extent of theological learning than he: it is reasonable, therefore, that he be guide for his time.

Of all the systems of religion upon earth there is none that I am aware of so well adapted for the moral advancement and elevation of mankind as is Christianity rightly understood. It makes mankind of all nations and classes brethren, removes all oppressive and burdensome superstition, inculcates the practice of humility and the suppression of pride, and teaches the simple worship of the invisible and omnipresent God in spirit and in truth. Such religion is, therefore, a religion of the heart and of the every-day active life, it has been designed, for mankind worldwide, is so universal in its application as to meet all their spiritual requirements, and fulfils the conditions of the Science of theology so far as can be fairly claimed of that Science. Such being its nature, design, and scope any diligent student of history or observer of his own times can see approximately how far its spirit and design have been departed from in certain ages, nations, and systems since the period of its first promulgation, and how necessary it is that a more general practice of its spirit and its precepts be cultivated among mankind. As I have before remarked the democratic spirit of the free American institutions has liberalized the narrow and exclusive religious sentiment of the world, and these institutions have it in their power to go on doing good in the same direction. Within the borders of the United States the Christian Sects though numerous have of late years been at peace with each other, and as far as I know their ministers may consider themselves as working for the same great end in slightly different ways, namely, for the moral and spiritual advancement of mankind.

There are, also, in this great country very large numbers of good-living, intelligent people who do not profess the Christian religion, nor a religion of any other name, perhaps, because they consider these religions as erroneous and burdensome. While believing that it is better for all to observe one day in seven for rest and for the worship of God in public, I have long since discarded the notion that the attending church does of itself make one either more or less respectable. They that would put on the name of religion as a cloak to cover their worldly designs of avarice and ambition, while not evincing the least degree of the spirit and love of God in their life and conversation, would wish no doubt to be deemed respectable as well as religious while they really are neither. The object in attending church should be to worship God in spirit and in truth in that place especially set apart for his worship. If one goes to the house

of God actuated by worldly or secondary motives it would be decenter and more manly for him to turn his steps to some other place or to remain at home.

I do not consider it my mission or consistent with my dignity as a scholar and a gentleman to insinuate any invidious distinctions between the sects of Christians by an independent criticism of each or a comparative estimate of their standing or merits; but I do think that (consistently with the living up to the moral precepts of the Gospel and the keeping the ideal head of the Church in view as a guide, directing men forward and upward, and as an exemplar whose lessons and practice of self-denial and active godliness are to be followed, even to "the crucifixion of the flesh with its affections and lusts," and in this sense as a Saviour, rather than as an unapproachable earthly monarch or as a Deity whose perfections it would be presumptuous and superfluous in mortals to attempt to imitate,)that the broader and freer, I say, the principles of the church are made both as to a consistent Gospel interpretation and otherwise, and the more intelligently humble and condescending its ministers, the greater advances will it make and the more effectual work will it accomplish in this country and age. Such is, I believe, the way in which the Christian sects, both Catholic and Protestant, may be unitized for their common good and for the good of mankind, for whose salvation they can then join their efforts. Is it any wonder that Scientists should sometimes be found who would find fault with religion when religionists of different sects are so prone to find fault with each other? It is past the time when ministers or leaders of sects would lose any self-respect by stepping forward and proposing to unite with their contemporary sects on the broad principles of a free and consistent Gospel interpretation. What endless series of sermons might be preached, and what numbers of excellent books might be written, upon the subject of man's capacity for infinite improvement, and on the probability of his capableness for advancement and elevation to moral and spiritual perfection as represented in the ideal head of the church, his elder brother so to speak, which sets forth his own real advancement and elevation if he will. The Bible, rightly interpreted, is a sufficiently broad basis for Christians to come together upon, and it is sufficiently ample and many sided in its adaptability to meet the religious requirements of all who will have it or to whom it may be applied in all ages.

CREATOR AND COSMOS

ILLUSTRATED;

BY

ROBERT SHAW, M.A.,

GRADUATE OF UNION COLLEGE, N.Y., WHO IS UNPREJUDICED TOWARDS ANY SECT OR PARTY AT THE EXPENSE OF THE TRUTH.

AUTHOR OF

"EXISTENCE AND DEITY;" OF A "UNIVERSITY ARITHMETIC;" &C.

IN TWO PARTS.

PART SECOND.

A GENERAL DISQUISITION INTO THE SUBJECT OF THE LITERARY CHARACTER AND NATURE OF THE COSMOTHEOLOGIC SYSTEMS OF MAN'S CREATIVE AGENCY, HISTORICALLY RETROSPECTIVE AND PROSPECTIVE AS TO MAN.

REVISED EDITION.

ST. LOUIS:
BECKTOLD AND COMPANY,
210 & 212 PINE STREET.
1880.

Revised Edition Copyrighted, 1880.

Entered according to Act of Congress, in the year 1880, by
ROBERT SHAW, M. A.,
In the office of the Librarian of Congress, at Washington.

INTRODUCTION TO PART SECOND.

THIS Second Part of the work serves a most important purpose, for, by giving a more correct understanding than that *commonly had* concerning the subjects embraced in it, it tends to confirm the conclusions already arrived at in Part First, a principal one of which is that of the permanency of the Cosmos, so far at least as reason or demonstration or any light that has yet been shed upon that subject can establish this. Thus, by clearing up the subject of revealed religion, showing the ground-work, character, and value of it, so to speak, it removes many stumbling blocks from the way of the mental perception and the spiritual understanding of the subject of the Creator and the Cosmos, and renders that subject more simple, interesting, and profitable. Nor does it say anything from beginning to end in the spirit of contention or passion; but while not intending to wound the feelings of the most exquisitely sensitive partizan of any religious sect, even of him who has his money interest involved in such, it does not in any statement pervert the truth to seek the favor of individual or party, which would be most reprehensible and base and most effeminate in an author. If, therefore, any one sees fit to take up arms against this book they will do so of their own incitement and motion, not indeed because they are scholarly gentlemen, for such generally use the spirit of appreciation and fairness, as we should expect, but possibly because they may have some private design of their own to further, and conceive that this will be effected with the unsuspecting masses by the noise of their opposition bringing them into notice. We have had experience of some such persons whom we cannot fairly designate as men. Neither are these facts put forth by me in order to prevent public discussion of the book, for it is from beginning to end a fit and profitable subject for discussion, and for public ventilation, provided this be done fairly and in a truly Christian spirit. And slowness or failure to notice it fully by the Press would we are sure be doing an injustice to the merits of the book and to the vast numbers who wish to have this subject treated fully and impartially; for by a consideration of its two parts it will be seen that no book on earth covers the ground it does. Good Editors, of course, will understand from this that all we wish for the book is fair play, and that we understand them to have

duties to perform for the masses in the cause of God and of Truth as well as we, duties which should not be shirked, as one is not able to do the whole of this work and they are in the work of public enlightenment already.

It will be observed that in the analysis of the accounts of creation in the book of Genesis; and in the analysis and synthesis of the Gospels and the Acts we have done the work with great care and thoroughness, and the conclusions, which were all weighed with the greatest deliberation, will be found consistent with each other and with common sense in everything; and in these conclusions we are *strongly supported* by the belief or the understanding of the most intelligent classes *of the primitive Christian Church*, even by some of the early Christian Fathers.

In the application of the civil and religious history of the Christian nations in demonstrating the fulfilment of the scriptural prophecies our whole aim was to set forth the truth in plain and moderate language with respect to the Christian establishments and their history, or the establishments of Church and State of the Christian nations, there being no deviation from the line of truth on any consideration of sect, *nor any desire to make an attack upon any existing religion or sect.* In showing the fulfilment of the prophecy we allowed the history to speak for itself, and where we expressed an opinion, or made a comment it was in a moderate tone. When, therefore, the Catholic of the Greek or Roman Church reads concerning the fulfilment of the prophecy in the history of the Church and State establishments of Constantinople and Rome, or of the East and West, let him remember that he has before him only a fair and impartial representation of the subject—a subject which it is very plain we could have no object to misrepresent—and let such read on carefully and patiently, and before he has finished reading the history of the Protestant branch of the Catholic Christian Church, as applied to the fulfilment of prophecy, he may perhaps conclude that the scale is pretty equally balanced and that there has been no partiality used and no misrepresentation made by the author. On the other hand, when the Protestant reads the history of the Greek and Roman Churches, as applied to the fulfilment of prophecy, let him not be disposed to be captious or to glory in the failings of men, but bethink himself that he is reading the history of his own ancestors in common with those of his brethren of the Greek and Roman Churches, and keep in mind that in reading the history of his own branch of the Church he will observe that like failings characterized its founders of the Reformation, and onwards, as he has seen to have characterized the old heads and leaders of

the Catholic Church, though in the main not to so great an extent. He will observe by a careful perusal of this book that this varied display of human character in every age and nation is simply the outworking of the principles inherent in human nature; that each human being in any or in every age or nation may if he will be and do good rather than evil, that when one thinketh he standeth he should take heed lest he fall, and should always be a living, active power for godliness in the world, which is the only safeguard against being or doing evil.

The several brief discourses we have added at the end, explanatory of prominent doctrines of Christianity, are designed more fully and clearly to set forth the intended idea of the gospel's religion, which rightly understood and freed from metaphysical subtilties is quite simple, in this respect it is the same of the Old Testament as of the New. They are designed also to be interesting and edifying for the general readers.

The authors we have consulted and from whom we have quoted in the preparation of this work, both in its first and second parts, are in their several departments regarded by the learned as the highest standards for veracity and style.

The Revision.

The revision of this Second Part of "Creator and Cosmos" has been executed with care and thoroughness, and the changes, which our research and discovery since the first edition was issued have enabled us to make, are many—more especially in the Review of the Gospels and the Acts, in which a more distinct idea, than as before, may be obtained of the founding of Christianity—and where these changes have been made or foot-notes added throughout this Second Part, the reader of the former edition will easily observe. As in the case of Part First, this will serve in its way as a reliable book of reference.

CONTENTS.

PART SECOND.

PAGE.

THE ACCOUNTS of the Creation in the Book of Genesis, examined and compared from the original . . . 1–7

ON MYTHS, their origin, &c. 7-8

SKETCH OF THE RELIGIOUS or the Mythological systems of the ancient nations, and of some other systems till our own time, the object being to show the idea of Deity entertained in each 8–52

THE ACCOUNT OF JESUS CHRIST including the account of John the Baptist as set forth in the four Gospels and the Acts, compared and examined from the original Greek; which may be called an examination into the subject of the origin of Christianity or into the subject of the literary character of the Gospels and the Acts; and in which these records are found to be mainly of allegoric elaboration, based upon a limited historical nucleus; and, interpreted in their intended application to real life, to be more important than if mainly of literal significance; but that whether they be of literal or of symbolic interpretation, of which they are either one or both in all cases, they have in either case a real signification 52–220

FIRST, as to the birth of John and the birth and life of Christ until he has chosen his twelve apostles . . 52–89

SECOND, an examination of the miracles of Christ in chronological order, their meaning being indicated . . 89–161

THIRD, the preliminaries to the trial, the trial, crucifixion, resurrection and post-resurrection appearances of Jesus investigated 161–221

WHAT FOLLOWS from our review of the Gospels, and from what we gather concerning them from other sources . 221–223

A BRIEF AND ANALYTIC REVIEW of the Book of the Acts of the Apostles; in which this book is discovered to be in the main of a like literary character with the Gospels; designed to supplement the canon of the Gospels; to be confirmatory of the Gospels' idea of Christ; and to show historically the progress of the incipient Christian Church 223–245

A REVIEW OF THE HISTORY of the Christian Church from the first promulgation of Christianity till within

PAGE.

recent times, in which the Church and State establishments of the Christian Roman Empire and of the Protestant nations of Christendom are scrutinized—especially with reference to the prophecies of the Book of Revelation, showing their historical fulfilment:— 246–457

FIRST, an explanation of chapters IV. and V. of Revelation in connection with the history of the Primitive Church extending from the origin of Christianity till the establishment of that religion in the empire by Constantine in the beginning of the fourth century 246–280

SECOND, an explanation of Revelation XIII. to verse 11, showing its fulfilment in the Greek Catholic Church and State system, established at Constantinople by Constantine and his successors, and existing in some sense for a period of over twelve hundred years, with reference to the parallel prophecies of the Book of Daniel 281–343

THIRD, an explanation of chapter XVII. Revelation, showing its fulfilment in the Roman Catholic Church and State system established by the Popes and the Western Rulers, especially Charlemagne and the German Emperors, and existing for a period of over twelve hundred years, with reference to the parallel prophecies of the Book of Daniel . . . 344–383

FOURTH, an explanation of chapter XIII. Revelation, from verse 11 to the end of the chapter, showing its fulfilment in the Protestant Reformed systems of Church and State, especially those of Germany and Britain, the length of their duration being left to be determined by the events, with references throughout to other parts of the Book of Revelation and Explanation, &c. 383–457

TEN BRIEF DISCOURSES, didactic, and explanatory of prominent Christian doctrines, designed to supplement the preceding, and in which the intended idea of the Gospels' religion, or of the true Christian religion, is more fully set forth and will be more clearly understood 457–528

1. *On Faith and Works* 457–462
2. " *Providence and Predestination* 462–469
3. " *Baptism and the Trinity* 469–475
4. " *the Lord's Supper* 475–481
5. " *the Law and the Gospel* 482–488
6. " *the Resurrection* 488–494
7. " *Heaven, Hell, and the Judgment* 495–503
8. " *the Cross of Christ* 503–511
9. " *Regeneration* 511–517
10. " *the Future Life* 517–528

CREATOR AND COSMOS.

PART II.

THE ACCOUNTS OF THE CREATION IN THE BOOK OF GENESIS EXAMINED AND COMPARED FROM THE ORIGINAL.

IN the beginning of Part First we have stated that the Deity is everywhere present, and that there is no place, conceivable or inconceivable, in which He does not exist. Thus, no one object exists which excludes or monopolizes Deity, and none has ever existed which did, or will ever exist which can; for the Creator is absolutely infinite, containing in Himself all extremes and means, moral as well as physical. This fact of the omnipresence of Deity should be kept in mind by the reader while perusing this second part of our work, in order that he may come to better understand the character of the Creator in seeing it variously manifested and displayed.

We have there also defined creation to be the effects produced for and in the universe by the Omnipresent and everacting CAUSE, and have discussed rather the subject of the actual creation than of the hypothetical actual or evolutional. This idea we have endeavored there to illustrate; and it will be our endeavor in this second part of our work to make it more clear and acceptable to our readers by eradicating from their minds some deep-rooted prejudices which the creeds and teachings of the past with respect to creation, redemption, etc., may have caused to exist in them against it. The accounts of the creation of the world given in the book of Genesis are probably allegorical,† and have a literal interpretation setting forth historical fact, like as the cosmologies of other ancient nations than the Hebrews. The Hebrew cosmology, in accordance with limited human conceptions, represents God as an agent bringing the earth and the heavens, not before in existence, into being, in some way which is called creation; and then, as on each day of six successive days, issuing an arbitrary command,

* The verbs to form, shape, make, cause, create, are synonyms, as all languages, even the Celtic, prove. We even speak of "moulding" or of "crystalizing" the thought. A man may create a railroad or an impression, but only the Unknowable and Omnipresent God, "in whom we live and move," could effect the operations of creation exhibited in the world around us. See page 10 etc., vol. I.

† Some may see fit to give an allegorical interpretation to these accounts of the creation, which they have a right to do if they can do it consistently and with good exhibition of proof that they are allegories, setting forth consistently some real truth.

in obedience to which other things, not before in existence, spring into being, connected with the earth and the heavens. Thus, on the first day (Gen. ch. I., vs. 1–6), God is represented as creating light, and dividing between the light and the darkness, which division constituted day and night; and thus was created the first day. On the second day (Gen. I., vs. 6–9), he is represented as creating the firmament (Heb. *râkiâ*, a flattened expansion), which we call the sky, for the double purpose of, *first*, keeping the waters, which existed above, as it was conceived, and which are wont to come down to the earth in the form of rain, etc., from coming down at once; *secondly*, to serve as a support for the heavenly lights, the sun, moon and stars, which were conceived to be inserted in this firmament as nails are in a door, and from which consequently they might be conceived to be liable to drop out. (See Isaiah XIV., 12; XXXIV., 4; Matt. XXIV., 29.) This *râkiâ*, or canopy, with all its shining lamps, was thought to revolve round the earth once in the space of day and night, or in twenty-four hours.* On the third day (Gen. I., 9–14), he is represented as gathering together the waters which were before spread broadcast over the earth,—so that the whole earth would have presented the appearance of a watery waste,—into one place, by which part of the surface of our globe becomes dry and hence the dry land is called earth, and the gathering together of the waters is called seas. On this day also he creates vegetables, each species and variety producing after its own kind. On the fourth day (Gen. I., 14–20), he is represented as creating the heavenly lights, the sun, moon and stars, which are inserted in the firmament, shining lamps, to give light upon the earth by day and by night. Here we find the inconsistency of the narrative, if literally considered, in representing light to have been cre-

---

* "The Hebrew term *râkiâ*, translated firmament, is generally regarded as expressive of simple expansion, and is so rendered in the margin of the authorized version. (Gen. I., 1–6.) The root means to expand by beating, whether by the hand, the foot, or any other instrument. It is especially used of beating out metals into thin plates. (Ex. XXXIX., 3; Numbers XVI., 39.) The sense of solidity, therefore, is combined with the ideas of expansion and tenuity in the term. The same idea of solidity runs through all the references to the *râkiâ*. In Ex. XXIV., 10, it is represented as a solid floor. So again in Ezekiel, I., 22–26, the firmament is the floor upon which the throne of the Most High is placed. Further, the office of the *râkiâ* in the economy of the world demanded strength and substance. It was to serve as a division between the waters above and the waters below. (Gen., I., 7.) In keeping with this view the *râkiâ* was provided with "windows," (Gen. VII., 11; Isa. XXIV., 18; Mal. III., 10,) and "doors" (Ps. LXXVIII., 23,) through which the rain and the snow might descend. A secondary purpose which the *râkiâ* served was to support the heavenly bodies, sun, moon and stars (Gen. I., 14) in which they were fixed as nails, and from which consequently they might be said to drop off. (Isa. XIV., 12; XXXIV., 4; Matt. XXIV., 29.) In all these particulars we recognize the same view as was entertained by the Greeks, and to a certain extent by the Latins. If it be objected to the Mosaic account that the view embodied in the word *râkiâ* does not harmonize with strict philosophical truth, the answer to such an objection is that the writer describes things as they appear, rather than as they are." (Smith's Bible Dictionary, Art. "Firmament.")

ated twice, which shows it plainly to be mythical*or allegorical; for on the first day, light is represented to have been created; and to show the absurdity of supposing that light to have been of the character of the Aurora Borealis, the electrical light, the light proceeding from volcanic eruptions on the earth's surface, or any such transitory, accidental, or evanescent phenomenon,—as some have pretended to suppose,—it is plainly stated (Gen. I., 1–6), that God divided the light from the darkness, called the light Day and the darkness he called Night; and the evening and the morning, or the intervals of light and darkness of the twenty-four hours, were the first day. Narratives which do not represent reality, or which are not to be understood literally, will almost invariably be found to be inconsistent with themselves, literally considered. Proper history, or narrative representing reality, will never be found inconsistent with itself, or self-contradictory, unless this spring from incompetency or accidental mistakes of the writer. On the fifth day (Gen. I., 20–24), God is represented as creating fish and fowls, or the various tribes that inhabit the waters and the air; and on the sixth all beasts and creeping things on and in the earth; as well as man, whom God creates after his own image and likeness (Gen. I., 24–31). In the act of creating man God is represented as plural, that is, as consisting of more than one person. This, besides the circumstance of man's being created in God's image and likeness, may suggest to the mind the probable conception of God which the framers and believers of this cosmological system entertained.

Elohim, the Hebrew word for God used in this chapter, is plural, but is turned into English as singular by the translators of our Bible. But in verse 26 this plurality is more explicitly set forth in the creation of man by the use of the pronouns "us" and "our." "And God (Elohim) said, let us make man in our image after our likeness." On the seventh day (Gen. II., 1–4), which brings the narrative down to the fourth verse of the second chapter, God is represented to have rested from his work; and here, let us remark, is the foundation upon which the whole seven-day system of Jews, as well as Christians, is built up.

Verse 4. of chapter II., begins another and distinct account of the creation. This narrative extends to the end of ch. IV., and includes an account of the Garden of Eden, the fall of man, the murder of Abel by Cain, etc. And there is a third account of the creation of man, which, beginning with ch. V., and being continued in a genealogy of the patriarchs, and in an account of Noah and the flood, extends to the end of ch. IX.

The style of the second of these narratives differs very consider-

* Myth, the same primarily as root Math in word Mathematics, I understand in my Genesaic applications of it may be synonymous with Allegory, *i. e.*, a composition designed to convey some truth, to *teach* something figuratively.

ably from that of the one we have just reviewed. In the first narrative the creative agent is designated by the term Elohim; in the second he is generally spoken of under the name of Jehovah Elohim.

This goes to prove a fact which has been very clearly discovered by modern critics,—that is, that the book of Genesis was not the production of a single author, but was made up of many ancient documents, characterized by the use of the divine names, and by other peculiarities of style and narrative, some of them more ancient than others, but all of them having existed before the time Moses is represented to have lived. Of these documents the ones characterized by the use of the divine name Elohim, are put down as more ancient than those characterized by the name Jehovah, or Jehovah Elohim. It is considered that Moses may have been the one that compiled these into the form in which we now have them in the book of Genesis and the Pentateuch (the first five books of the Bible, all of which give evidence of having been compiled from different documents), or that this compiling may have been done by some other and later hand than his.

This second account of the creation, ch. II., 4, III., 24, is not only distinguished by a peculiar use of the divine names,—for here, and nowhere else in the whole Pentateuch, have we the combination of the two, Jehovah Elohim,—but also by a mode of expression peculiar to itself. No one will read this second account of the creation, and pretend to say that it came from the same source as the first, so entirely different is its representation. In the second it speaks of the day (Gen. II., vs. 4, 5), in which the Lord God made the earth and the heavens, &c.; in the first it represents God as taking six days at least to accomplish the work of creation; in the second it represents the Lord God as having made "every plant of the field before it was in the earth, and every herb of the field before it grew;" in the first it represents God as, on the third day, commanding "the earth to bring forth grass, the herb yielding seed, and the fruit-tree yielding fruit after its kind," which, accordingly, it is represented as doing on this very day. According to the second account (Gen. II., v. 6), a mist ascends from the surface of the earth, which comes down in rain and moisture, and waters the whole face of the ground, which, indeed, corresponds exactly with our knowledge now of how the earth is watered, namely, by the process of evaporation, by which the clouds, as a sponge, absorb the waters from the surface of the oceans, lakes, and rivers, and distil it again in the form of rain, &c., upon the thirsty earth.

But in the first account an entirely different idea is represented, for the *râkiâ*, or firmament, is made with windows and doors in it

which were opened and shut at the pleasure of Elohim, and through which the waters above the firmament should descend in the form of rain, &c., upon the earth. In the second narrative (Gen. II., v. 7) the Lord God is represented as forming one man out of the dust of the ground, breathing into his nostrils the breath of life, and constituting him a living soul; but in the first God creates man in his own image, male and female, or mankind. In the second (Gen. II., verses 18, 21–25), the Lord God observes that it is not good for the man whom he has formed to be alone, and so he causes a deep sleep to fall upon Adam, and while in that unconscious state he extracts one of his ribs, out of which he forms a woman; in the first, no such means are employed in the production of a woman; Elohim creates mankind, male and female, in his own image. In the second account the creation of man appears to take place before that of the beasts and fowls; in the first it follows them, for man is last of all created on the sixth day. In the second narrative (Gen. II., 19, 20) the Lord God forms out of the ground every beast of the field, and every fowl of the air, and brings them to the man to see what he would call them; "and whatsoever Adam called every living creature, that was the name thereof;" in the first, God commands the earth to bring forth the living creature after his kind, cattle and creeping thing and beast of the earth after its kind; and it was so. And God made all these terrestrial living creatures after their kind, and saw that it was good; but he is not represented here as bringing them to the man, or to man, to be named. In the second narrative (Gen. II., 8–18) is represented the garden of Eden, with the tree of the knowledge of good and evil, and the tree of live, which the Lord God planted, and especially prepared to be the abode of the man and woman that he had formed; in the first, no mention is made of such a garden or place having been prepared for man's abode; but "God blessed them, and God said unto them: Be fruitful and multiply and replenish the earth and subdue it; and have dominion over the fish of the sea, and over the fowls of the air, and over every living thing which moves upon the earth." The earth here was the garden prepared for man's abode, which he was to cultivate and to keep; and all the productions of the earth, animate and inanimate, were given to him for his use. But a singular deficiency in the second account of creation is, that in it nothing is said of the creation of the water animals, fish, etc., which with all the rest of the creatures are mentioned in the first. According to this second account of creation especial care is represented to have been taken to provide for the comfort and convenience of the newly created pair, but in the next chapter (Gen. III.) a representation is given of their fall through

their yielding to the temptation of the old serpent, the devil, from the happy state of innocence in which they were created; and of their being cast out of paradise into the wide world. Were this narrative to be understood literally their expulsion from paradise might seem like their being cast out of an abode in a singularly beautiful and extensive garden where grew all manner of delicious fruits and beautiful flowers, which had its enclosures of beasts and birds, both wild and tame, and its spacious streams flowing through it, replenished with fish of all kinds and varieties that pertain to rivers, into a wild, inhospitable common, where grew neither plants nor flowers, where coursed no crystal river nor babbling brook, in which, like as in Eden, the finny tribes might sport, embanked with verdant meads, and dewy glades, and groves of trees through which the birds and beasts might flutter, frisk and feed; but where all around was a wild and dreary waste, and savage men, and savage beasts, and birds of prey, did roam at large.

The next chapter (Gen. IV.) gives a further representation of the effects of their fall from original innocence, in the murder of Abel by Cain, which should at least teach men the importance of practising self-denial, of subduing in themselves the principle and spirit of malignancy, of eradicating that baneful principle from their very nature, and cultivating in all circumstances the spirit of benevolence and brotherly love to their kindred and neighbors of mankind. It will, we think, require no long dissertation to convince any one who will give a sufficient degree of attention to the subject that this second account of creation is not of literal interpretation, since it is inconsistent with itself, literally considered, in representing only a partial creation. The first account is, as we have stated, mythical or allegorical. But both of these accounts of creation come down to us with equal authority and as of equal credibility; and since, if literally considered they are inconsistent in themselves taken singly, and contradictory when examined with reference to each other (for if one of them represents creation as having taken place in one way, and the other in another different way, both of them purporting to relate the same event or series of events, namely, the creation, they certainly contradict each other), how can we understand either one of them as of literal interpretation? But considering them as different phases of the same allegoric representation, which may be intended to set forth a truth that when discovered is applicable to real human life, in this way they may be made to bear a respectable and useful interpretation, which it is not our present purpose to enter into, but which others may be interested to undertake.

The third account of the creation in Genesis has especial reference to the creation of man. It does not, as the two preceding narratives, refer to the creation of the world or anything else pertaining to it, but man. This is found in the two first verses of ch. V., Genesis, and appears to correspond partly to the first, and partly to the second account of the creation of man, as set forth in the first and second chapters. Here the divine name Elohim is used, as in the first; not Jehovah Elohim, as in the second account; but the name Adam is here used, which does not appear in the first, but is in the second. It is as follows: "This is the book of the generations of Adam. In the day that God created man in the likeness of God made He him; male and female created He them and blessed them, and called their name Adam in the day when they were created. And Adam lived an hundred and thirty years, and begat a son in his own likeness after his image, and called his name Seth, etc."

In the second account it is not said that God creates man in his own image after his likeness.*

Thus, this third account corresponds partly to the first and partly to the second account of the creation of man, and appears to be inserted here for the purpose of exhibiting the genealogy of Noah with reference to Adam, or the reputed first man, according to the second account, which genealogy is given in the remaining part of Chapter V.; and then the account of Noah and the flood to the end of Chapter IX.

Such is a complete and dispassionate examination of the accounts of the creation in the book of Genesis, and we have only to note that we have not the least doubt of the correctness of the conclusions to which we have come concerning them, that we would be pleased for all to have the correctest and consequently the simplest understanding on the grand and sublime subject of the Creator and the Cosmos, but that if others incline to other conclusions concerning this subject than those we have demonstrated, we do not intend "to meddle with their joy," but expect at least an equal deference for our original demonstrations, as they doubtless wish for their opinions or assumptions.

ON MYTHS; THEIR ORIGIN, ETC.

Myths originate, not necessarily, as some say, in the early period of a nation's history, for a nation's history is permanent, though it may not be written, but in a nation's ignorance. Ancient men, for example, seeing around them certain institutions or states of things,

* See I. Corinthians, XI., 7.

and not being able, by the knowledge they possessed, to account for their existence (for men naturally suppose that everything they see must have had an origin, that is, must have been brought into existence); arbitrarily, and, perhaps in some cases ingeniously, ascribed their origin to some agent or occurrence which never existed to produce them, unless in their imagination; and so the mythical story is made up, the one part being added to the other, and all made to hang together as consistently as the amount of knowledge, or the ingenuity of the author or authors, allows it to be.

Also there may be different accounts of the origin of the same institution, or of the production of the same thing or state of things from as many different authors, each and all of whom were ignorant of it; one ascribing its origin to one cause or agent, another to another, one representing it as being produced in one way, another in another way, according to the view each happened to take of it (for we know that men often take different views of the same subject, with respect to which the facts are not known or given); and each of these stories put together as plausibly and consistently as the ability of the author admitted, but each, when examined with the eye of knowledge and of sound criticism, being found to be inconsistent with itself, and all, when examined with reference to each other, being found to contradict each other mutually.

Some myths there are, doubtless, which owe their origin to dreams or visions; to false rumors from abroad, which, agreeing with the opinions of the hearers, were eagerly caught up and systematized into plausible stories; and to other causes, of which many likely ones might be adduced, and of which each one is privileged to think for himself. Yea, and upon such mythical foundations great superstructures of history have been raised. The histories of all the ancient nations have a mythical foundation; that of the Medes and Persians, and Babylonians, and Assyrians; that of the Egyptians, of the Greeks, of the Romans, and of the Germans; in short, of all the ancient nations; for we know no exception to the statement. And how far these myths extend into the records, or at what point in the records the authentic history begins, is often a very difficult matter to determine, and requires the painstaking labor of the scholar and the critic. Until one arrives at the point in these records where the mythical chaff is no longer intermingled with the historical wheat, the records cannot be relied on as authentic history or story.

SKETCH OF THE RELIGIOUS OR MYTHOLOGICAL SYSTEMS OF THE ANCIENT NATIONS.

The Chinese, Hindoos, Etc.

Confucianism, Brahminism, Buddhism.

The ancient religion of the Chinese, not speaking of Buddhism, which was imported to China at a later period from abroad, and which we shall have occasion to speak of afterwards, was an extremely meagre one; and it is said their language does not contain a word or symbol representing a spiritual or divine Being. Confucius, their celebrated philosopher, who lived about the year 500 B. C., as well as his disciples and followers, never in their teachings alluded to a spiritual or divine Being as the creator or the governor of the universe. In his lifetime, it is said, all the relations of social and civil order were in a state of utter dissolution, and he, by inculcating a strict and pure system of ethics, endeavored to restore the morality and happiness of former ages. To this great object he devoted all the energies of his life, but he did not live to see the fruits of his labors; for it was not till after his death that his countrymen, appreciating his doctrines, really commenced the work of reform, and made his ethical system the soul of their social and political life. This tradition appears to be perfectly correct, and is borne out even by the present condition of the Chinese people. The moral code of Confucius teaches the most absolute submission of children to the will of their parents, of wives to that of their husbands, and of the whole nation to that of its rulers. The idea of freedom, or of a self-determining will, is not at all recognized in it.

The Sanscrit, the ancient and sacred language of the Hindoos, in which their greatest works are written, is one of the richest, the most euphonious, and the most generally perfect that has ever been spoken by man. The most ancient works extant in this language are the Vedas and the Laws of Manu, in which at the same time we find the earliest form of the Indian religion. In them we meet with the idea of one uncreated supreme Being, existing from all eternity, and of himself, comprehending and pervading the universe as its soul. From him who is himself incomprehensible and invisible all visible things have emanated; hence the universe is nothing but the unfolding of the divine Being, who is reflected in the whole as well as in every individual creature. This original and simple notion of one supreme Being was changed in the course of time into polytheism (of which there is always great danger, and there never is any need, and that in the case of all nations), and of which traces appear in the

Vedas themselves. The stars, the elements, and all the powers of nature were conceived as different divine Beings that had emanated from the one supreme Deity. Even in the work of creation, a plurality of Gods were believed to have been engaged. Brahma, himself created by the first invisible cause, and assisted by the Pradshaptis (the lords of creation), called into being all the various living creatures. Nature after its creation is supposed to be under the special guardianship of eight spirits, or gods, of secondary rank, among whom Varuna presides over the sea, Pavana over the winds, Yama over justice, Locapalas over the world, Indra over the atmosphere, and Surya over the sun. Numberless spirits of an inferior order are subject to these, and are diffused throughout nature; while the divine substance pervades all living beings, from Brahma down to the lowest animals and plants. Within this endless variety of beings the souls of men were believed to migrate, entering, after the death of man, into beings of a higher or lower order, according to the degree to which they had become purified in passing through their previous state of existence. This doctrine of the transmigration of souls, which we meet with in other countries also, probably originated in India, where it was carried out to its full extent. By way of illustration we may state that, according to the common belief, the soul of a disciple of Brahma, blaming his master, passed after his death into the body of an ass; if he calumniated his master, into that of a dog; if he robbed him, into that of a little worm; and if he envied him, into an insect. By this it is seen in what state of bondage of body and mind the lower orders of the Hindoos were kept, and what absolute control their priests and the higher castes exercised over them. This belief also led the Hindoos carefully to avoid killing or injuring any living being; while, on the other hand, there was no scruple in treating a Pariah (one of the lowest class, or one not included in any caste) with inhuman cruelty, because his very condition was regarded as a well-deserved punishment for his transgressions during a previous existence. It must not, however, be forgotten, that this belief acted as a powerful stimulus to strive after moral purity and goodness, inasmuch as it created the notion that by self-denial, self-control, a knowledge of the sacred books, and a conscientious observance of the rules contained therein, the soul of man might return to God, and become worthy of his presence. The object, however, in all these things seems to have been to make men conform to certain mechanical rules rather than to make them strive after the real purity of heart.

A somewhat different phase of this Indian religion appears in the national epics in which the gods are described as having descended

to the earth, and as taking part in the affairs of men. At this stage the gods appear as real personifications, with definite forms; their images are set up in temples and worshipped, and the pure idea of one supreme and invisible Deity re-appears under the name of Brahma (of the neuter gender), who manifests himself in three divine capacities, bearing the names Brahma (masculine), the creator and lord of the universe; Vishnu, the preserver, and Siva, the destroyer. Vishnu is said to have come into the world in a variety of forms, to save it from the influence of evil powers, to punish vice, and to maintain order and justice. These numerous incarnations of the god furnish rich materials for a varied and fantastic theology. Siva is conceived as destroying all finite things; but as death is only a transition to a new form of life, he was also worshipped as the god of creative power; whence he is the representative of ever-decaying and reviving nature. The number of subordinate Deities also increases, and they assume more definite forms. The earth itself is conceived to be inhabited by hosts of spirits, dwelling in mountains, rivers, brooks, and groves; animals, and even plants, are worshipped as embodiments of divine powers and properties. This vast mythology, which subsequently became the popular religion of India, may be gathered from the works called Parunas, which occupy a middle character between epic and didactic poetry. They seem to be a compilation from earlier poems, and to have been made at the time when the Indians began to be divided into sects, that is, when the gods of the Trimurti began to be no longer regarded as subordinate to the one great original god, called Para-Brahma, but when one of the three was himself worshipped as the supreme god; for the sectarian divisions consisted in this, that some portion of the people worshipped one of the three gods of the Trimurti more particularly as the supreme being, while the two others enjoyed less honor; and the priests of one member of the Trimurti, with their votaries, persecuted the worshippers of either of the other two members with obstinacy and relentless fury. At first, Brahma seems to have had his separate worshippers, though no temples or images were erected to him, for idolatry was till then unknown. Afterwards, there followed the separate worship of Vishnu, and last that of Siva and other gods. In the end, the worshippers of Vishnu and Siva gained the upper hand, and pure Brahminism was suppressed, although it is still largely represented in the worship of the idols of India.

In the sixth century B. C., according to the Cingalese chronology,—in the tenth, according to the Chinese,—a new religion arose in India in the midst of Brahminism. It was, and still is, called Buddhism, from Buddha, its founder, who came forward as the reformer

of Brahminism. The history of this remarkable religious reformer is involved in obscurity, partly because it was written by his disciples in a legendary form, with additions and embellishments, and partly because until recently it was known only from the works of non-Indian followers of Buddha, such as the Tibetians, Chinese, and Mongols ; while the most authentic, or Sanscrit, authorities have scarcely yet been thoroughly examined. The Sanscrit works are considerable in number, and are divided into three classes : the first of which consist of discourses and conversations of Buddha ; the second of rules of discipline ; and the third of metaphysical speculations.

According to the common legends about the origin of Buddha, his real name was Sakyamuni, or Gautama. He was the son of a powerful prince, and the most handsome of all men. Even at his birth, he was surrounded with spirits, which continued to watch over him throughout his life. The fourfold miseries of mankind, viz. : the pains of childhood, disease, old age, and death, affected and saddened him so much, that he resolved to renounce all the pomp and luxury of his station, and lead the life of an humble hermit. After having spent a period of six years in this way, he returned among men, and began to inculcate to them the necessity of despising the pleasures of this world, and of subduing every selfish feeling. He himself practised these virtues to such a degree, that he became a superior being, Buddha, that is, an immortal. As such he was believed, after his death, to rule over the world for a period of five thousand years ; at the expiration of which he was to be succeeded by another Buddha, as he himself had been preceded by four or six other Buddhas. The saints who, by their merits, ranked nearest to Buddha himself, and who might become his successor, were called Bodhisattvas. According to this doctrine, therefore, the highest power in the spiritual as well as in the natural world, belongs to deified men, and most of the Buddhists (this religion is likewise divided into several sects) do not recognize one eternal divine creator and ruler of the world, but believe that all things have come, and are still coming, into existence by some inscrutable law of necessity, and by an unceasing process of change. Only one of these sects practises the worship of one supreme God, under the name of Adi-Buddha. But the non-existence of such a being had been asserted even before the time of Sakyamuni, by certain Indian philosophers, from whom he perhaps borrowed the idea. He did not indeed impugn the existence of Brahma and the numerous other divinities, but he taught that the power of Buddha was greater than theirs. In other respects, he retained the doctrines of Brahminism, as, for instance, that of the migration of souls. Re-

wards and punishments, according to him, were not eternal, but he taught that the man raised by his virtues to the rank of a god, as well as the condemned, was subject to the immutable law of change ; and that both must return to this earth to pass through fresh trials, and a fresh succession of changes. The highest happiness, in his opinion, was to escape from this eternal change of coming into being and dying ; whence he held out to the faithful and the good the hope that in the end they would become a Nirwana, that is, that they would enter a state of almost entire annihilation. This state of supreme happiness is conceived differently by the different sects of Buddhists ; but in the main idea all agree.

The objects which Sakyamuni himself had in view were far removed from those metaphysical speculations on which at a later period his followers became divided into sects. His own doctrines, though intimately connected with his philosophical views, were essentially practical ; for he maintained that there were six cardinal virtues, by means of which a man might attain the condition of Nirwana, viz., almsgiving, pure morality, knowledge, energy in action, patience, and good-will towards his fellow-men. The fundamental principles of Buddhism, therefore, are essentially of an ethical nature, and the advantages which such a system seemed to afford were so great that it could not but attract great attention at a time when Brahminism, though still intellectually at its height, had sunk very low in a moral point of view. Religion in the hands of the Brahmins had become a mere mechanical observance of ill-understood ceremonies, for which Sakyamuni wished to substitute a truly pious life ; at the same time he endeavored to put an end to the haughty and domineering spirit of the priests. He accordingly denied the unconditional authority of the Vedas, and it was formerly believed that he even condemned the whole system of castes ; but although this latter belief appears to be founded upon error, still it is evident that a pious and virtuous life being made the sole condition of eternal happiness, virtually the division into castes was not recognized, though they continued to exist as corporations of different occupations and trades, or as political bodies. The Brahmins alone, as a religious class, were not only not recognized, but vehemently opposed. This open rupture between the old and the new religion was not produced at once, for Sakyamuni himself did not aim at destroying what he found, but only wished to bring about a peaceful reform within the established religion, and to inculcate the necessity of a really pious life. His own personal influence, his discourses, and his austerity, however, produced a great effect, and disciples gathered around him from all classes, even from the Brahminical caste. Afterwards, however, the

Brahmins began to persecute the ascetic Buddhists; but the greater the opposition the greater was the success of the new religion. The lower castes in particular, feeling themselves elevated by the new doctrines, seized eagerly the opportunity of getting rid of fetters which had hitherto constrained them; and the teaching, addressed as it was to the people without distinction, produced astonishing effects. The Sudras (or lowest of the four castes) felt called upon to embrace the new doctrines, and to become members of the community of saints; and even many of the Kshatryas (the second caste, the warriors), impatient of the priestly arrogance of the Brahmins (or first caste), adopted them in the end. Kings also joined the reformers, and gave a character to the new religion at least in the eyes of the popular masses. About the middle of the third century B.C., we meet with a king Acoka, a grandson of Chandragupta, who ruled over nearly the whole of India, and was devotedly attached to the doctrines of Buddhism, without, however, persecuting the still numerous adherents of Brahminism. He not only erected numerous Buddhist temples, but strove himself to live entirely in accordance with the ethical precepts of the new religion, practising the virtues of general benevolence and kindness to all men. He abolished capital punishment throughout his extensive dominions, erected everywhere hospitals for the sick, and made roads, shaded by trees, and provided with wells at certain intervals. He not only established and extended Buddhism in India, but even sent missionaries into foreign countries. The progress of the new religion was thus immense, but very little is known about the struggles it had to maintain in India with its great and powerful rival. All we know is that the Brahmins continued to exert themselves in maintaining their own religion, and the old state of things; and that after a few centuries a mighty reaction took place, in which the exasperated Brahmins succeeded in rousing their followers to a desperate and bloody contest with their opponents. These struggles, which appear to have lasted from the third to the seventh century of our era, terminated in the defeat of Buddhism, which was almost exterminated in the western peninsula. After the expulsion of the Buddhists, however, a sect of them, called Yainas, still maintained itself, rejecting the authority of the Vedas, and worshipping deified men. But Buddhism had long before spread beyond the borders of western India, and had been adopted by numerous other Asiatic nations. In the third century B.C., it was introduced into Ceylon, whence it spread over nearly all the Indian islands, and over a great part of further India, Thibet and China, in the last of which countries it took root as early as the first century of the Christian era, under the name of the religion of Fo, or

Foë, which is the Chinese name for Buddha. It was especially the lower classes among the Chinese that eagerly took up the new religion, and to this day Buddhism is the religion professed by a majority of the Chinese people. Altogether this religion is the most widely-spread in the world, extending from the Indus to Japan, and numbering over two hundred millions of adherents.

Buddhism has undergone various changes in the countries into which it has been introduced, but its most essential points everywhere are traceable to its Indian origin. It had at first combatted the existence of a privileged class of priests; but in its turn, probably for the purpose of self-preservation, or to be more effectual in the promulgation of its doctrines, it instituted an order of priesthood itself. Sakyamuni himself is said to have raised those of his followers who chose an ascetic life, by a kind of consecration, to the rank of Sramanas, which we may interpret by the term "mendicant friars;" for they were obliged to vow to spend their lives in celibacy, and to support themselves solely by alms. These Sramanas formed the retinue of Sakyamuni as long as he lived, and even those who lived in the wilds and solitudes sometimes gathered round him to listen to his discourses. These monks in the course of time began to congregate in separate buildings, and thus formed convents, which, by the liberality of their adherents, acquired great wealth, and were placed under strict regulations regarding dress, food, the mode of admission, and the like; in all of which respects they were types of the convents and monasteries afterwards and so long established in Christendom. These priests differed essentially from the Brahmins by their ascetic mode of life in convents, and by their celibacy. The worship of this new religion was at first very simple. Bloody sacrifices were unknown, because it was unlawful to kill any living being and because the religion recognized no God to which sacrifice might be offered. Buddha alone was worshipped, and that in two ways; divine honors being paid to his image and to the remains of his body, the latter of which were preserved in eight metal boxes deposited in as many sacred buildings or temples. Buildings containing the remains of Buddha himself, or of distinguished persons who had supported his doctrines, were afterwards greatly multiplied. The Brahmins in a similar manner raised vast mounds over the remains of illustrious men, but never paid them any divine honors. Such Buddhist mausoleums are found in great numbers in those countries where his religion is, or was once, established, especially in Ceylon, where they are called Dagops. In Afghanistan, on the north-west of the Indus, many such monuments of great interest have been discovered in modern times, and are popularly known under the name of Topes.

They are all built in the form of cupolas, with a few small chambers in the interior. Many of them have been opened, and a great number of objects of value, offered by pilgrims, have been found in them.

Buddhism, though originating in an opposition to the abuses of Brahminism, degenerated in the course of time into something which is probably worse than Brahminism. Its dogmas have become wild and fantastic; its form of worship is an empty system of pomps and ceremonies; and its ascetic priests are described as forming a most domineering hierarchy, so that in all Buddhist countries there exists a very marked distinction between the clergy and laity. The priests still live in convents, which are at the same time the schools for the young; and the greatest veneration is paid to them by the people; but they are in turn bound to strict obedience to their ecclesiastical superiors. Nowhere is the Buddhist hierarchy so fully and so perfectly organized as in Thibet, where nearly half of the population consists of priests, who together with all the rest of the people, recognize a sort of pope, styled Dalai Lama, as their head. He is regarded as the living embodiment of a Bodhisattva, whose soul at the death of the individual in whom it has existed is believed always to migrate into the body of his successor. Many of the institutions and ceremonies of Buddhism have so striking a resemblance to those of the Roman Catholic religion that it was once believed that Christianity had exercised great influence upon Buddhism; but subsequent investigations have proved that the eastern institutions are more ancient than Christianity, and that in all probability Buddhism and Roman Catholicism have arrived at the same results independently of each other. Under such circumstances the expulsion of Buddhism from India has not been a misfortune, for at an early period its *pure ethics* gave way to the worship of its founder, and to a pompous and wearisome ceremonial; and its influence tended to retard rather than promote intellectual and literary culture. In India intellectual pursuits have always been mainly connected with Brah minism, as is clear from the development of its literature. The Buddhists have indeed a literature, but it was subservient only to a transmission of their doctrines; whereas the national, or Brahminical literature, embraces all the relations and manifestations of human life, and is worthy of careful study. The Vedas, as was remarked before, are the most ancient monuments of the Sanscrit, or Brahminical literature, and were, according to tradition, communicated to men by Brahma himself. They were then handed down by oral tradition, until a wise man, by the name of Vyasa (the collector) put them together in their present order, and divided them into four great parts, each of which is subdivided into two sections, of

which the first contains prayers, hymns, and invocations, and the second rules about religious duties; and theologico-philosophical doctrines. Some few of the pieces constituting the Vedas are evidently later interpolations, but the genuine parts cannot belong to a later date than the tenth century B. C., but as much before that period as may be. In Sakyamuni's time they were revered as very ancient works. The book next in importance consists of the laws of Manu, which was likewise believed to be divinely inspired, for Brahma was said to have communicated them to his grandson Manu, the first mortal. The laws contained in this book are intended as a basis for all the religious, political, and social relations of life. It begins with the creation of the world, in this respect like our Bible, and treats of education, marriage, domestic and religious duties; of government, the civil and penal law, of castes, repentance, the migration of souls, and the blessings of the future life. The age of this work is probably more recent than that of the Vedas, notwithstanding the tradition; and much also is traceable to subsequent compilers; but although despotism and priestly rule, as well as a great number of petty and childish ceremonies, form the main substance of the work, yet the whole is pervaded by a spirit of profound piety and benevolence toward men and all living creatures.

The Iranians (Bactrians, Medes, and Persians).

Ormuzd and Ahriman; Zoroaster in the Zendavesta.

It is one of the fundamental doctrines with all the Iranians that originally all things, both moral and physical, were divided into good and evil. Each of these two divisions was presided over by a divine being, the good by Ormuzd, and the evil by Ahriman. Neither of these beings was regarded as eternal, but as produced by Zervane Akrene, that is, uncreated Time, who after the creation of Ormuzd and Ahriman, entirely disappears, leaving the creation and government of the world, and all that is contained in it, to those two mighty and divine beings. Ormuzd was from the beginning in a region of light, the symbol of all that is good; while Ahriman dwelt in darkness, the symbol of all that is evil; and the two were perpetually at war with each other. Ormuzd began and completed the creation which was a creation of light, and Ahriman, though conceived as the destroyer, was nevertheless regarded as a creator; but this creation was the empire of death, and darkness, and evil, which he constituted in such a manner as to oppose to every creature of Ormuzd one created by himself, with similar qualities, but perverted into evil; thus he created the wolf as the counterpart to the useful dog; and in general all beasts of prey which shun the light and crawl on the

earth, and all troublesome and destructive insects were regarded as creatures of Ahriman. In this manner the whole of the physical world was divided between light and darkness, and all the moral world between good and evil, and the two worlds were conceived as engaged in perpetual contest with one another, the evil trying to destroy the good, while the good in its turn is bent upon overpowering the evil. It was believed, however, that in the end the principle of good would prevail, which belief would probably correspond with the Christian expectation of the Millennial era; and, according to some, even Ahriman and his followers were then to be purified and admitted among the blessed. In both these empires, of light and of darkness, there existed intermediate beings between the supreme rulers and the race of mortals; these consisted of spirits of different grades and ranks. The throne of Ormuzd was surrounded by six arch-spirits, called Amshaspands. Next to them in rank were the Izeds, who stood to the Amshaspands in the same relation as the latter did to Ormuzd. The hosts of other inferior spirits, called Fervers, were innumerable, and pervaded all nature; for every living creature had its Ferver dwelling in it, imparting to it light and motion, and conferring physical and spiritual bl[illegible]ngs on those who addressed it in pious and humble prayer. The[illegible]rits in the empire of Ahriman were called Devs, six of which ans[illegible]red to the Amshaspands, and they were the authors of every mis[illegible]tune and of all sins. This religious system, notwithstanding its s[illegible]ular dualism, is yet far more spiritual than any of the other polyt[illegible]ic religions of Asia. It seems to have originated in the worship [illegible]he heavenly bodies which shed their light upon the earth, for [illegible]orship prevailed in a very large part of Asia, where the cloudl[illegible], with its cerulean blue, clothes all nature with a peculiar [illegible]ncy. Light, there, naturally appeared as the vivifying princi[illegible]fusing joy and happiness over all creation, while darkness se[illegible]remove and destroy all that owed its origin and life to ligh[illegible]e fire also was worshipped as the element containing and [illegible]ight; and in special places a perpetual fire was kept up with [illegible]rifications and ceremonies. This material worship of light [illegible]re was raised, in the religion of Ormuzd, to a spiritual charac[illegible]r in it light is no longer a mere physical but a moral good, and [illegible]ymbol of higher spiritual purity. For a long time worship [illegible]d simply to the light and fire as they appeared in nature; the im[illegible]nations of the Iranians do not appear to have conceived the objec[illegible]of their worship in definite forms, nor did they invent any myt[illegible]ogical stories about them. Sacrifices were offered in the open air, and on hills; and Herodotus expressly states that the Persians in his time had neither statues,

nor temples, nor altars. But religion did not remain in this condition ; for idolatry was introduced as early as the age of the Persian empire. At a still later period idolatry again disappeared, and its place was supplied by the material worship of fire ; and at this stage the religion of Ormuzd has continued to the present day ; for a few surviving remnants of the ancient Iranians, called Parsi, still cling to the worship of their ancestors, notwithstanding the furious persecution of the Mohammedans. They are found in some of the eastern parts of Iran, especially in Surate in western India, and their religion has become a coarse, mechanical, and superstitious fire-worship, deserted and abhorred by the Mohammedan population.

The sacred writings in the Zend (ancient Iranian) language called Zend-Avesta, were unknown in Europe until, about the middle of the last century, a Frenchman named Anquetil du Perron brought them to France and published a translation of them. These books excited great interest at the time, because they revealed one of the most remarkable of religious systems, which till then had been imperfectly known in Europe. The authenticity of the works, which was at first questioned, has since been established beyond all doubt by Oriental scholars. The legends and religious views which the books, especially the most ancient of them, contain, appear, if not in their original freshness and purity, yet free from foreign admixture.

According to the ancient and genuine doctrine of the Zend-Avesta man became mortal through the sin of his first parents, and for the same reason he was placed in the middle between the world of Ormuzd and that of Ahriman. Being free in his choice, but weak, he would sink under the dominion of Ahriman and his agents, who watch him night and day, and endeavor to draw him into the regions of darkness, were it not that Ormuzd had revealed to him the law of light. Under the guidance of this law man is able to escape the pursuit of Ahriman and his Devs, and to arrive at a state of bliss, which was the object of Ormuzd in revealing his law. The sum and substance of this law is that in order to be happy man must be pure in his thoughts, words and actions; and the pure man must shun the contact of everything proceeding from Ahriman, the source of all that is impure. If he has been unable to avoid coming into contact with the impure he is obliged to undergo a process of purification, consisting of a variety of ceremonies. The worship of the sacred fire, sacrifices, prayers, and the reading of the sacred books, constitute the chief religious observances ; contact with dead bodies of animals or men was regarded as particularly polluting ; whence the people were allowed neither to bury nor to burn the dead; by

the former the earth would have become polluted, and by the latter the fire. Accordingly there remained no way of disposing of the dead bodies but to expose them in a place where they did not come in contact with the earth until the birds of prey and the wild beasts had consumed the flesh, after which the bones were collected and preserved. In all this moral and physical purity are blended and confounded. But one part of the law tells men what to do to induce the earth to yield her blessings; they are enjoined to build towers, where priests, herds, flocks, women and children might congregate in purity; to cultivate waste lands and improve them by irrigation; and, lastly, to take care of the cattle and all domestic animals. The following is a maxim which we quote from the Zend-Avesta: "He who sows the ground with care and diligence acquires a greater stock of religious merit than he could gain by the repetition of ten thousand prayers." The prayers here referred to are most probably after the manner of those formal prayers which some people even now-a-days are wont to spend their time in repeating, to the neglect of their proper and pressing duties. There is no reason why one, while being diligent and industrious in the pursuit of an honest business, may not cultivate a prayerful spirit; why one may not at the same time be fervent in spirit, serving the Lord. That part of the law to which we have referred, as well as the maxims, of which there are many good ones, is evidently intended to preserve and promote civilization and the popular welfare; and while Ormuzd thus presides over civilized life, Ahriman rejoices in wildness and savageness, and everything that is opposed to a well organized moral system. Hence the Iranians, considering their own country to be under the special protection of Ormuzd, believed that the land to the north-east, beyond the Oxus and Jaxartes was under the direct influence of Ahriman, because it was inhabited by rude nomadic tribes, which were hostile to them; and they distinguished that country from their own by giving it the name Turan. Their aversion to the Turanians, however, did not arise merely from the fact of the latter being nomads, for some of the Iranian tribes themselves led a nomadic life, but because they were hostile to them, and all their social and religious institutions.

The religion of Ormuzd, by impressing upon its adherents the necessity of subduing nature, and of combating with all their might the influence of the Empire of Ahriman, could not fail to rouse them to a life full of vigorous activity; and it must have exercised a very considerable influence upon the social and political condition of the people; but we possess but very little historical information about the earliest times. The most ancient, and at the same time the only

native records of the history of Iran are contained in the Zend-Avesta; but they are so entirely mythical that it would be useless to attempt to deduce any real history from them. Also, the traditions embodied in the great epic poem by Firdusi, a Persian poet of the middle ages, are so thoroughly legendary and so much embellished in the oriental fashion, that they cannot be regarded as a real basis of history. Hence the age of Zerdusht, commonly called Zoroaster, the famous religious lawgiver of the Persians, is buried in utter obscurity. Some Greek authors state that he flourished about five thousand years before the Trojan war, or over six thousand years before Christ, according to which he might be set down as a purely mythical personage. Firdusi relates that he lived in the time of king Gushtasb, who adopted his doctrines, ordered his subjects to establish the worship of fire, and diffused the Zend-Avesta throughout his dominions. The Zend-Avesta does not describe Zoroaster as the original author of fire-worship, but only as a prophet who developed and completed the whole system. Hence he cannot be regarded as a purely mythical personage, nor be assigned to as late a date as some critics would assign, that of Darius, the son of Hystaspes, in the 6th century B. C.

The Babylonians or Chaldeans.

The Babylonians, or Chaldæans, were especially celebrated as diviners; it was especially by means of astrology that they pretended to obtain a knowledge of the future; and as this knowledge was believed to be hereditary in the caste of the Chaldæans their predictions were thought to be infallible, and were consequently looked upon with great respect. This art of foretelling the future by observation of the stars was reduced by the Chaldæans to a regular system, which was called by both Greeks and Romans a Chaldæan science; and ultimately astrologers in general came to be called Chaldæans in the southern countries of Europe. The belief in the possibility of such astrological prophecies arose among the Chaldæans from their notion of the divine powers possessed by the stars, a notion of which indications occur even in the religion of Ormuzd. The sun and the moon being the most prominent among the heavenly bodies were regarded by the Babylonians as the principal divinities, next to which came the planets or the twelve signs of the Zodiac. But these divinities were conceived in human form, and in this anthropomorphism Baal or Belus, the sun-god, was the supreme divinity, whence Western nations identified him with the Greek Zeus, and the Roman Jupiter or Saturn. Belus was further regarded as the

founder of the state and city of Babylon, and as the progenitor of the Babylonian kings. As Belus was the supreme male divinity, so Mylitta, or the moon-goddess, was the highest female divinity; being also the symbol of productive nature, she is often mentioned by Greek and Roman writers under the name of Aphrodite, or Venus. Her worship was connected with the most revolting obscenity; and seems to have contributed not a little to the demoralization of the Babylonian people.

The five planets were the heavenly bodies, from which in particular the Chaldæans pretended to obtain their knowledge of the future; with them as with all subsequent astrologers, Jupiter and Venus were beneficent powers, Mars and Saturn hostile, while Mercury was either the one or the other, according to its position. As the priests by their astrological observations were led to observe the stars and their revolutions, which in the plains of Babylon, with their clear unclouded sky, was easier than elsewhere, they gradually acquired real astronomical knowledge, which enabled them to calculate with astonishing accuracy the returns of eclipses of the sun and moon. In their chronological calculations, they had lunar cycles as their basis; but they devised means for bringing the lunar and the solar year into harmony. They knew and employed the division of the day into twelve hours; to determine which, they used a sort of a water-clock or clepsydra, which was afterwards adopted by Greek astronomers. This occupation, with mathematical calculations also, led them to other branches of Natural Philosophy, such as mechanics; and in Western Asia the Babylonians were the first people that had a regular system of weights and measures, which was afterwards adopted by the Syrians and Greeks. Their system of religion, though faulty, operated well upon their character, and would have produced far more extensively beneficial effects, had they as a nation practised purity of life, and abstained from that licentiousness and gross immorality to which it is well known the Babylonians were addicted.

The Phœnicians.

The basis of the religion of the Phœnicians was also the worship of the heavenly bodies; but this worship became coarse, and degenerated, in consequence of the notion which was gradually formed that the stars were persons with all the passions of human beings. The great god of the Shemitic race, Baal, is understood to have been the same with the Phœnician Moloch; he was the demon of fire, to whom, for the purpose of appeasing his wrath, men, and especially

children, were sacrificed in a most cruel and revolting manner. The statue of the god was made of brass, and when sacrifices were to be offered, the idol was made red-hot, and the wretched victims were placed in the arms to be slowly roasted to death. Their mothers, who were compelled to be present, did not venture, through fear, to give utterance to their feelings. Such sacrifices of children were offered every year on a certain day at the commencement of great undertakings, and during any misfortune with which the country was visited. But the progress of civilization and the government of Persia, to which Phœnicia ultimately became subject, forbade the perpetration of such horrors. During the siege of Tyre by Alexander the Great, some persons in despair proposed to return to the practice, which had long been discontinued; but the magistrates prohibited it. It is uncertain whether Melkarth may be also regarded as identical with Baal and Moloch. His chief temple was at Tyre, but he was worshipped also in the Phœnician colonies. The Greeks partially identified him with their own Heracles, from whom, however, they sometimes distinguished him by the attribute of the "Tyrian." Among the female divinities Astarte occupied the first rank; she was the tutelary goddess of the Sidonians, and was identified by the Greeks and Romans, sometimes with Aphrodite or Venus, and sometimes with Hera or Juno.

The Egyptians.

The Egyptians, though a people inclined to enjoy life, were nevertheless a serious and meditative people, and in one way or another religion, or rather superstition, was connected with all their thoughts and actions. Their religion seems originally to have been a kind of pantheistic idolatry, or a worship of deity in all the manifestations of nature. This view appears to account more satisfactorily for their worship of animals than the explanations of the Greeks, according to whom it arose out of gratitude towards certain animals on account of their usefulness; for it was useful animals alone that they worshipped.* In Osiris and Isis, they worshipped the fertilizing powers of nature under the names of a male and female divinity. Kneph, or Neph, was conceived as the spirit of God pervading the universe at the creation, while Pthah was regarded as the real creator, and Ammon, or Amon, as the king of the gods.

* True wisdom, however, teaches us not to worship the Deity under any form, real or symbolical, substantial or imaginary. Spiritual worship is what is, and what always has been alone required. The worship of the infinite and invisible Deity with a prayerful heart, and a contrite and pure spirit, shall not be despised.

The power of evil seems to have been personified in Typhon, who in many respects resembles the Persian Ahriman.

Among the animals receiving divine honors in Egypt, we may mention the ox, the dog, the cat, the ibis, the hawk, and some fishes, all of which were worshipped in all parts of Egypt; others enjoyed only a local veneration, while in some localities they were regarded as unclean, or were even objects of persecution. Thus, the sheep was worshipped only in the district of Thebes and Sais; the goat at Mendes; the wolf at Lycopolis; the lion at Leontopolis; the eagle at Thebes; the shrew-mouse at Athribis; and others elsewhere. Whoever killed a sacred animal intentionally was punished with death; if unintentionally, he might escape by paying a fine. Sometimes even bloody wars were, it is said, carried on between neighboring districts because an animal had been killed in the one which was worshipped in the other. This strange superstition and fanaticism maintained themselves among the natives even during the time the country was governed by the Greeks, the successors of Alexander the Great, and by the Romans. We naturally conclude that such a system of animal worship must have been worthy not only of denunciation but ridicule, when we are told that when a cat died a natural death, all the inmates of the house shaved their eyebrows, and when a dog died they cut away the hair from all parts of their bodies! These sacred animals after their death, were embalmed, and deposited as mummies in the sepulchres of men. In some instances the worship did not extend to whole classes or species of animals, but to one particular animal of the species, distinguished from the rest by certain marks. An animal of this kind was attended to with the greatest care, and the priests charged with it were held in the highest respect. The most celebrated among such animals was the bull Apis, which was kept at Memphis. The animal was always black, with a triangular white spot on his forehead, and the figure of an eagle on its neck. It was believed to confer upon boys attending upon it the power of prophecy. If it reached the age of twenty-five years, it was killed, but otherwise it was allowed to die a natural death. Such an event produced general mourning and lamentation, and its burial was accompanied with all imaginable pomp and ceremony. But the general grief gave way to the most unbounded joy as soon as the priest had discovered or prepared a calf with the requisite marks, and produced the new god. The ancients expressly state that Apis was only the symbol of Osiris, whose soul was believed to be in the bull, and to migrate after his death into the body of his successor. This last notion is connected with the belief which the Egyptians shared with the Indians and

other nations that the soul, after the death of the body migrated into another. The doctrine itself was, however, differently developed by the Hindoos than by the Egyptians; for according to Herodotus, the Egyptians believed that the soul of man after his death had to pass through the bodies of all the animals of the land and of the sea, and even through those of the birds of the air; and that then, after the lapse of three thousand years, it returned into the body of the human being. When, notwithstanding this theory of the migration of souls, we hear of the belief of the Egyptians in the existence of a kingdom of the dead, called Amenthes or Amenti, the sojourn of the souls in it could not have been conceived as permanent, and it was probably regarded as only a transition state, in which the mode of migration was determined by Osiris, the judge in the kingdom of the dead. His judgment is often represented in Egyptian paintings, and we there see the actions of the departed regularly weighed in a pair of scales. A similar judgment is said to have taken place in Egypt, whenever a person had died. On such an occasion any one might come forward with accusations against the deceased; and when the charges were proved, the burial of the body was forbidden. Even deceased kings had to undergo such an ordeal. The priests, it is said, eulogized him, but the assembled people either agreed, or expressed their dissent by a tumultuous noise; and if the latter prevailed, the king was deprived of the customary magnificent burial. This regulation was probably the reason why few of the Egyptian kings made any gross abuse of their power. Such extraordinary care as the Egyptians bestowed upon the preservation of dead bodies seems to be irreconcilable with the doctrine of the migration of souls, as well as with that of a kingdom of the dead, unless we assume that the preservation of the body was believed to be indispensable to the immortality of the soul, and that the soul would return to it after its three thousand years of transmigration. There can be no doubt that the religion of the priests differed in many essential points from that of the great mass of the people. This has been so, and is so still, to a considerable extent, in all religions. We have little information as to the extent and amount of knowledge possessed by the Egyptian priests, simply because the country had no national literature. The god Thoth was regarded as the author of all knowledge, and believed to have invented arithmetic, geometry, astronomy, and the art of writing, all of which sciences were to some extent cultivated by the Egyptians; the art of writing was used in the way of hieroglyphics.

The Pelasgians and the Greeks of Heroic and Historic Times.

The religion of the ancient Pelasgians appears to have consisted mainly in the worship of the powers of nature, many traces of which are visible in the religion of the Hellenes, though they are more numerous in the purer religion of the Italian Pelasgians. Their principal god was Zeus, whose most ancient seat of worship was at Dodona, in Epirus. He there also had an oracle, which retained its celebrity for a very long period, until in the end it was eclipsed by that of Apollo, at Delphi. This male divinity Zeus had his counterpart in the female Dione, who was his wife, and the mother of Aphrodite, the goddess representing love and fertility. In some parts of Greece, such as the islands of Samothrace, Imbros, and Lemnos, in the north of the Egean, a certain mysterious Pelasgic worship continued to exist down to a late period. The most important branch of the Pelasgians were the Pierian Thracians, who inhabited the coast district of Macedonia, north of mount Olympus; for mythology tells us that there the first poets flourished, such as Orpheus, Musæus, Thamyris, Eumolphus, and Linus, all mythical personages who probably never existed, only as the creations of the imagination; but the legends about them show that according to the notions of the Greeks, poetry had been widely and enthusiastically cultivated by the Pelasgian Pierians, and had been employed by them for the exaltation and embellishment of religious worship.

The religion of the Greeks in the heroic age was only a further development of that of the Pelasgians, and not essentially different from that which we find established during the historical ages. The Greek sympathized strongly with the outer world, and in all the objects around him he found life, or imparted it to them from the fulness of his own imagination. Every part of nature roused in him a distinct sentiment of religious awe, and everywhere his imagination conceived divine forms to worship. The complicated system of mythology which arose out of this simple worship of the powers of nature was formed partly by a process of personification, partly by raising the local deities of certain tribes to the rank of national gods, and by connecting and uniting them into one great hierarchy. These processes were the work of the national mind of the Greeks, strengthened and guided by the poets. Each tribe or city, however, continued to worship one or more deities as its special patrons or protectors. All the gods were conceived as beings in human forms, and as subject to the same passions and frailties as mortals; but they

were nevertheless believed to punish men for their offences both in this world and in the future state. Prayers and sacrifices were employed to propitiate them, and the more precious the offering was the more pleasing it was thought to be to the deity. Hence the sacrifice of human beings was the highest oblation. The gods were represented in statues or symbols, but we need not believe that the statues or symbols themselves were worshipped as the divine beings; such gross idolatry seems to have arisen only in later times, when the symbol was confounded with the power symbolized.* The functions of the priests, male and female, who were generally connected with the worship of some particular divinity, consisted mainly in offering sacrifices, though the king, and the fathers of families might do the same on behalf of those whom they represented. The most important branch, however, of a priest's duties consisted in his ascertaining the will of the gods, and those occurrences of the future which the faculties of men were unable to divine. The belief in the possibility of acquiring such knowledge gave rise to oracular places, the most renowned of which was Dodona and Delphi; but many other methods also were resorted to to discover the will of the gods or the decrees of destiny. The reverence and veneration for departed great men gradually led to hero worship, which, common as it was in more recent times, is never hinted at in the Homeric poems. The whole earth was conceived by the Greeks as a plane surface surrounded by the river Oceanus; the Mediterranean was only a depression of the earth's surface, the central point of which was Delphi; a vast pit in the earth called Hades was the receptacle of the departed spirits; and far below the earth lay the still more dismal pit of Tartarus. Mount Olympus, in Thessaly, was regarded as the highest mountain on earth; here was the habitation of Zeus, the supreme monarch of gods and men, and his attendant deities; and the canopy of heaven was considered to be a solid vault of metal, supported by Atlas, who kept asunder heaven and earth.

One remarkable way in which the Greeks were accustomed to honor the gods was by the celebration of certain national games periodically in different parts of Greece. The most important of these festivals was that celebrated every four years at Olympia in Elis. The foundation of these Olympic games belongs to a period

* We may remark, however, that if a being in human form, or indeed in any form, is conceived as the object of worship, it is as reasonable to pray to a statue or symbol as to that creature of the imagination; the one is just as absurd and as inadmissible as the other. The Deity being everywhere present is not to be represented by any creature, either substantial, tangible, and visible, or only imaginary; it is dishonorable to the Deity to so represent him; and still we cannot be too earnest and enthusiastic in our prayers to him and our worship of him.

buried in obscurity; but after they had been discontinued for a long period, during the disturbances created by the conquest of Peloponnesus by the Dorians, they were revived by Iphitus and Lycurgus; but they were not finally and permanently established till 776, B. C., whence that year was employed by the Greeks as a chronological era. During the celebration of these games at Olympia, there was a general suspension of hostilities, to enable the Greeks from all parts to attend them without hindrance or danger. The contests at this festival in honor of the Olympian Zeus consisted of exhibitions displaying almost every mode of bodily activity; they included races on foot, and with horses and chariots; contests in leaping, throwing, wrestling and boxing; and some in which several of these exercises were combined; but no combats with any kind of weapon. Towns and families regarded it as the highest honor for one of their members to gain a victory in any of the contests at Olympia. The prize consisted of a simple garland of the leaves of the wild olive. Athens and Sparta showered honors upon any of their fellow-citizens who had gained a prize. The celebrity of these Olympic games led to the institution of several others of a similar character, such as the Pythian, which were celebrated in the neighborhood of Delphi, in honor of Apollo, in the third year of every Olympiad; the Nemean, which were celebrated in Nemea in Argolis, and the Isthmian, at the Isthmus of Corinth twice in every Olympiad.

The religious notions of the Greeks underwent a considerable change in the interval between the heroic age and the conquest of Greece by the Romans. The undoubting and childlike faith of the early times, when the gods were considered as beings that took an interest in the joys and sorrows of mortals, had long since vanished among the higher and educated classes, and was despised as superstitious. The philosophical enquiries from the time of Socrates downwards had shaken polytheism to its very foundations. Governments attempted to interfere, declaring themselves the defenders and upholders of the ancient national religion, and some philosophers were even punished or banished, ostensibly, for atheism. But it was of no avail: ancient polytheism could not maintain its ground, and was ultimately supplanted by a purer and holier religion, which was intended as a blessing for all mankind, but which at length itself became polytheistic, and no less absurd and wicked than the old religion which gave it place.

THE ROMANS.

The religion of the early Romans was in all essential points like that of the early Greeks, a worship of nature, and her various powers

personified; but with this difference, that the Greeks, being a more imaginative and poetical people, clothed their conceptions and ideas in the form of numberless stories, of which the Roman religion, in its ancient and pure state, is perfectly free. Jupiter was their supreme male divinity, the monarch of gods and men; and the corresponding female divinity was Juno, his sister and wife. This religious system of the Romans is described as a device of Numa Pompilius, the second king of Rome (who, we may remark, is supposed by modern historians and critics to have been most probably a mythical personage, as was his immediate predecessor Romulus, the reputed founder of the state and city of Rome). Numa's long reign of forty-three years, from 715 to 672, B. C., is represented as a period of uninterrupted peace, during which the king was chiefly occupied in establishing the priesthood, and the ceremonies connected with the worship of the gods. He first regulated the calendar by the institution of a lunar year of twelve months, or 355 days, of which some were set apart for religious purposes; and then instituted the various orders of priests, as the flamens, or priests of Mars, of Jupiter, and of Quirinus; the vestal virgins; the salii of Mars; the pontiffs, who possessed the most extensive powers in all the matters connected with religion; and lastly, the college of augurs, whose business it was to ascertain the will of the gods by observing the flight of birds in the air and their manner of feeding. Numerous temples and altars were also erected to the gods; and in all these proceedings Numa is said to have been guided by the counsels of a divine being, the nymph Egeria, who favored him with her presence in a sacred grove. There can be no doubt that many of the institutions ascribed in the legend to Numa had existed from time immemorial among the Latins and Sabines. But in the reign of Tarquinius Priscus, the fifth king of Rome, the religion, which had before been of a simple and rustic character, is said through his influence, to have become more pompous and showy; the gods are then said to have been first represented in human form. Moreover, as soon as the Romans had become connected with the Greeks in southern Italy, Greek local deities and forms of worship were adopted, and threw many of the other parts of the ancient national religion into the shade to such a degree that they became mere matters of antiquarian curiosity, whose meaning and import were forgotten.

In the beginning of the empire a regular custom was introduced that on the decease of every emperor who had neither lived nor died a tyrant, the senate by a solemn decree should place him in the number of the gods; and the ceremonies of his apotheosis were blended with those of his funeral. This legal, and, as it appears,

injudicious profanation, so abhorrent to our sense of right, and so blasphemous withal was then received with a very faint murmur by the easy nature of polytheism; but it was received, so the event proved, as an institution, not of religion, but of policy; for though the worship of certain dead emperors was established by law, their worship was never universally practised in the Roman empire, but in general only by those who were connected with the court and government. This worship of the deceased emperors was to some extent continued in the case of the Christian emperors.

In all ages, more especially among the eastern nations, there has been a certain kind of worship, which in our language is called *homage*, paid to ruling sovereigns. The pagan Roman emperors, and even the governors of provinces, who, indeed, according to their own Roman customs and usages, were rather democratic, that is, of the people, and accustomed to mingle with the people in all the affairs of life, social as well as civil, had this worship paid them in various ways, principally through the flattery of the conquered nations. This worship was also continued to the Christian emperors, and to the present day is given to ruling sovereigns of Europe, all calling themselves Christian.

The Ancient Germans.

The religious system of the ancient Germans was not very unlike some of the systems we have reviewed. They adored the great visible objects and agents of nature: the sun, the moon, fire, and the earth, together with the imaginary deities that were supposed to preside over the most important occupations of human life. They practised arts of divination to discover the will of the superior beings; and human sacrifices they supposed were the most acceptable oblations at their altars. The Germans neither represented the deity by any human figure, nor confined him within the walls of a temple; their only temples were dark and ancient groves, consecrated by the reverence of succeeding generations. Their secret gloom, the imagined residence of an invisible power, by presenting no distinct object of worship, impressed the mind with a deep sense of religious awe; and the priests, rude and illiterate as they were, had been taught by experience the use of every artifice that could preserve and fortify impressions so well suited to their own interests.

The defects of civil policy among the ancient and uncivilized Germans were sometimes supplied by the interposition of ecclesiastical authority. The latter was constantly exerted to maintain silence and decency in the popular assemblies; and was sometimes

extended to a more enlarged concern for the national welfare. A solemn procession was occasionally celebrated in the territories which are at present called Mecklenburgh and Pomerania. The unknown symbol of the earth, covered with a thick veil, was placed on a carriage drawn by cows; and in this manner the goddess, whose common residence was in the isle of Rugen, visited several adjacent tribes of her worshippers. During her progress, the sound of war was hushed, quarrels were suspended, arms laid aside, and the restless Germans had an opportunity of tasting the blessing of peace and harmony. The *Truce of God*, so often and so ineffectually proclaimed by the clergy of the eleventh century, was obviously an imitation of this ancient custom. A brave man among the Germans was the worthy favorite of their martial Deities; the wretch who lost his shield was alike banished from the civil and religious assemblies of his countrymen. Some of the German tribes appear to have embraced the doctrine of transmigration; others imagined a gross paradise of immortal drunkenness. All agreed that a life spent in arms and a glorious death in battle, were the best preparations for a happy futurity, either in this or in another world. The immortality so confidently promised by the German priests, was in some degree conferred by the bards. The genius and character of that singular order of men have most deservedly attracted the attention of all who have attempted to investigate the antiquities of the Germans, the Scandinavians, and the Celts. How faint and cold the sensation a peaceful man can only receive in the solitary study of the works of these bards! It was in the hour of battle, or in the feast of victory that the bards celebrated the prowess, and the glories of the heroes of ancient days, the ancestors of these warriors or chieftains who listened with transport to their artless but animated strains. The view of arms and of danger heightened the effect of the military song; and the passions which it tended to excite, the desire of fame and contempt of death, were habitual sentiments of a German mind.

The Gauls and Britons or Ancient Celts.

The religion of these ancient peoples was Druidical, but about this system of religion or of superstition little is known. The Druids (wise men, magicians), practised their rites in dark groves, or other secret recesses; and in order to throw greater mystery over their religion, they communicated their doctrines only to the initiated, and strictly prohibited the committing of them to writing, lest they should at any time be exposed to the scrutiny of the profane vulgar. Human sacrifices were offered among them; the spoils of war were often de-

voted to their divinities, and they punished with the severest tortures whoever dared to secrete any part of the consecrated offering. These treasures they kept in woods and forests, secured by no other guard than the terrors of their superstition ; and their steady conquest over human avidity may be regarded as more signal than their availing to prompt men to the most extraordinary and the most violent efforts. They inculcated the eternal transmigration of souls, and thereby extended their authority as far as the fears of their votaries. The people, fierce and violent, urged on to war by their priests and bards, rushed into battle with the greatest vehemence. Such an ascendant had this idolatrous superstition over the minds of the ancient Gauls and Britons, that the Romans, after their conquest, finding it impossible to reconcile these nations to the laws and institutions which they imposed, were at last obliged to abolish it by penal statutes : a violence which had never, in any other instance, been practised by those tolerating conquerors.

The American Indians.

The superstitions of the various tribes of Indians of North and South America, were, and are, various. They, however, universally believe in the Great Spirit, and some of them, we know by experience, have very intelligent views of things spiritual. They also, in general, believe in immortality and in a blissful home, which awaits them after death, in some happy island which the Great Spirit has provided for the good. Their spiritual ideas are indeed sublime, inspired as they are by the wild scenery of their native forests ; by the bright waters of the majestic American rivers, and rippling brooks, roaring cataracts, and cascades ceaselessly flowing in their courses ; by the natural verdure which the earth presents in such luxurious abundance and such great variety beneath their feet and all around them ; and by the grand and diversified appearance which the sky presents above their heads, the shining orb of the sun dazzling their eyes while describing his course in the heavens during the day, and bedecked with the moon, displaying at times her different phases, and the stars and planets all pursuing their courses during the night. Their modes of worship, or rather religions, are different ; one of the tribes now in North America, perhaps more, is accustomed once every year to sacrifice a dog ; and the Aztecs of Mexico, and, doubtless, other tribes of the continent, and of the West India Islands, were accustomed to sacrifice human beings. It would be a desirable object if more efficient measures than ever yet were instituted, should be devised to civilize the tribes of the Indians, and bring them to a knowl-

edge of the truth, to be and to do good. Doubtless there could be many good, sensible, and self-denying men found, and fitted, who would be willing to go among the Indians for that purpose, provided they were enabled first to undertake the enterprise, and then supported in their missionary work. And who of our readers would not be willing to contribute somewhat to such an enterprise, when they would hear of such an one being undertaken? And shall not this book come to some who will themselves originate such measures as will result in ameliorating the condition of the poor benighted Indian? God will recognize all such efforts, and will liberally reward them.

THE MOHAMMEDANS.

The religion of Mohammed, which now overspreads a wide extent of the fairest portions of the earth, was begun to be introduced by its founder in the first quarter of the seventh century of our era. It is now, and for many centuries has been, the prevailing religion in those countries once constituting the Eastern Roman Empire, and including the cities of Jerusalem, Constantinople, Alexandria, and Antioch. The conquest of the Eastern countries by the Mohammedan arms, and the consequent establishment of the Mohammedan religion on the ruins of Paganism and perverted Christianity, appears very like a divine judgment upon both Pagan and Christian idolatry. As has been shown before, and may be seen more fully hereafter, the idolatry which from the days of Constantine came to be practised by the Christians in those countries was even more absurd and abominable than that which had been destroyed with Paganism to give place to Christianity. And as people of our language in general know but little about Mohammed or Mohammedanism, we think it necessary here to give a somewhat more detailed account of both, than we have given of any of the ancient religions of which we have spoken.

Seven hundred years before the age of Mohammed the Jews were settled in Arabia; and a far greater number were exiled from the holy land in the wars of Titus and Hadrian. The industrious exiles aspired to liberty and power; they erected synagogues in the cities, and castles in the wilderness, and their Gentile converts were confounded with the children of Israel, whom they resembled in the natural mark of circumcision.* The Christian missionaries were still more active and successful in proselytizing; the Catholic missionaries asserted the universal reign of the Church; the Marcionites, and Manicheans, being oppressed by the Catholics, successively retired beyond the limits of the Roman empire, and dispersed their

* The Arabians practised circumcision as well as the Jews.

fantastic opinions and apochryphal gospels; the churches of Yemen and the princes of Hira and Sassan, were interested in the creed of the Jacobites and Nestorians. The liberty of choice was presented to the Arabian tribes by the variety of Christian sects; each Arab was free to choose or to compose his private religion; and the rude superstition of his house was mingled with the sublime theology of Christian saints and martyrs. A fundamental article of faith was inculcated by the consent of the learned strangers; the existence of one supreme god, who is exalted above the powers of heaven and earth, but who had often revealed himself to mankind by the ministry of his angels and prophets, and whose wisdom and power had interrupted by seasonable miracles the order of nature. The most rational of the Arabs acknowledged his power, though they might neglect his worship; and it seemed to be habit rather than conviction that still attached them to the relics of idolatry. The Jews and Christians were called the people of the Book; the Bible was already translated into the Arabic language, and the volume of the Old Testament was accepted with accord by the hostile Arabian tribes. In the story of the Hebrew patriarchs the Arabs were delighted to discover the fathers of their nation. They applauded the birth and promises of Ishmael, revered the faith and virtues of Abraham; traced his pedigree and their own to the creation of the first man, and imbibed with equal credulity the prodigies of the sacred text, and the dreams and traditions of the Jewish rabbis.

The Christians have unskilfully calumniated Mohammed in describing him to be of a base and plebeian origin, for by this they exalt rather than degrade the merit of their adversary. His descent from Ishmael was a national privilege or fable; but although the first steps of the pedigree could not be traced, he could produce many generations of pure and genuine nobility. He sprang from the tribe of Koreish and the family of Hashem, the most illustrious of the Arabs, the Princes of Mecca and the hereditary guardians of the Caaba, or the temple of Mecca. Thus, Mohammed was of a priestly family, the sacerdotal office having devolved through four lineal descents to the grandfather of the prophet; and the family of the Hashemites, from whence he sprung, was the most venerable and sacred in the eyes of their nation. Abdallah, the son of Abdol Motalleb, was the most beautiful and modest of the Arabian youth; and in the first night when he consummated his marriage with Amina (a Jewish maiden) of the noble race of the Zahrites, two hundred maidens are said to have expired through jealousy and despair. Mohammed, the only son of Abdallah and Amina, was born at Mecca about four years after the death of the Emperor Justinian, or about the year 570 A. D. In his infancy

he was deprived of his father, his mother, and his grandfather; his uncles were strong and numerous; in the division of the inheritance the orphan's share was reduced to five camels and an Ethiopian maid-servant. At home and abroad, in peace and in war, Abu Taleb, the most respectable of his uncles, was the guide and guardian of his youth; and in his twenty-fifth year Mohammed entered into the service of Cadijah, a rich and noble widow of Mecca, who soon rewarded his fidelity with the gift of her hand and fortune. The marriage contract, in the simple style of antiquity, recites the mutual love of Mohammed and Cadijah; describes him as the most accomplished of the Koreish, and stipulates a dowry of twelve ounces of gold, and twenty camels, which was supplied by his uncle's liberality. By this alliance the son of Abdallah was restored to the station of his ancestors; and the judicious matron was content with his domestic virtues, till, in the fortieth year of his age, he assumed the title of a prophet, and proclaimed the religion of the Koran. Being persecuted at Mecca he fled to Medina, whence he afterwards returned as a conqueror to Mecca; and the date of his flight from Mecca is called the Hegira, whence dates the Mohammedan era. Mohammed's youth was spent in the bosom of the noblest race, and in the use of the purest dialect of Arabia, and the fluency of his speech was moderated and enhanced by the practice of discreet and seasonable silence. With these powers of eloquence Mohammed was an illiterate barbarian; he had never in his youth been instructed in the arts of reading and writing, though doubtless he saw the necessity of them and acquired these arts to some extent afterwards. The common ignorance that surrounded him exempted him from reproach, but he was reduced to a narrow circle of existence, and deprived of those faithful mirrors which reflect to our minds the minds of sages and nations. Yet the book of nature and of man was open to him; in two journeys which he made in his youth, in company with the caravan, to the fairs of Bostra and Damascus in Syria, his eye of genius might discover some objects imperceptible to his grosser companions; some seeds of knowledge might be cast upon a fruitful soil; but his ignorance of the Syriac language must have checked his curiosity; and in the life and writings of Mohammed one cannot perceive that his prospect was far extended beyond the limits of the Arabian world. From every region of that solitary empire the pilgrims were annually assembled at Mecca by the calls of devotion and commerce; in the free concourse of multitudes a simple citizen in his native tongue might study the political state and character of the tribes, the creeds and practice of the Jews and Christians. Some learned strangers might possibly be obliged to seek the rights of hospitality; and the enemies of Mohammed have

named the Jew, the Persian, and the Syrian monk, whom they claim lent their secret aid to the composition of the Koran. If it requires uniformity in a work to denote its being the production of a single artist it will be plainly discernible by any one who takes the pains to examine it that neither Mohammed nor any other one man was the author of the Koran, though it may be he compiled it into some such form as we have it now from his own composition and from pre-existing materials.*

From his earliest youth Mohammed was accustomed to religious contemplations. Each year during the month Ramadan † he withdrew from the public and from his wife, Cadijah, into the cave of Hera, three miles from Mecca, where it is probable he spent his time in religious contemplations, in composing and arranging the Koran, and in devising schemes for his future conquests. The faith which, under the name of *Islam*, he preached to his family and nation was this: THAT THERE IS ONLY ONE GOD, AND THAT MOHAMMED IS THE APOSTLE OF GOD.

Mohammed rejected the worship of idols and men, of stars and planets. In the Deity he confessed and adored an infinite and eternal being, without form or place, without issue or similitude, present to our most secret thoughts, existing by the necessity of his own nature, and deriving from himself all moral and intellectual perfection. These sublime truths, thus announced in the language of the prophet, are firmly held by his followers, and defined with metaphysical precision by the interpreters of the Koran. The professors of the religion of Mohammed are universally distinguished by the name *Unitarians;* and the danger of their becoming idolaters has been prevented by the interdiction of images. The doctrine of eternal decrees and of absolute predestination is strictly held by the Mohammedans; and they too struggle with the common difficulties, how to reconcile the prescience and predetermination of God with the freedom and responsibility of man; how to explain the permission of evil under the reign of infinite power and infinite goodness.

Mohammed liberally allowed to his predecessors, the prophets of the Old Testament, the same credit which he claimed for himself; and the chain of inspiration was thus continued from the fall of Adam to the promulgation of the Koran. During that period some rays of prophetic light had been imparted to one hundred and twenty-four thousand of the elect, discriminated by their respective degrees of virtue and grace; three hundred and thirteen apostles were sent with a special commission to recall mankind from idolatry and vice;

---

* See Koran, translated by George Sale. † The ninth month of the Mohammedan year.

one hundred and four volumes had been dictated by the holy spirit; and six legislators of transcendent brightness had announced to mankind the six successive revelations of various rites, but of one immutable religion. The station and authority of Adam, Noah, Abraham, Moses, Christ, and Mohammed rise in just gradations above each other; but whoever hates or rejects any one of the prophets is numbered with the infidels. Of the myriads of prophets Moses and Christ alone lived and reigned; and the remnant of the inspired writings are composed in the books of the Old and New Testament. For the author of Christianity the Mohammedans are taught by the prophet to entertain a high and mysterious reverence. "Verily Christ Jesus, the son of Mary, is the apostle of God; and his word, which he conveyed unto Mary, and a spirit proceeding from him, honorable in this world and in the world to come; and one of those that approach near to the presence of God." The wonders of the genuine and apocryphal gospels are profusely heaped on his head; and the Romish Church has not disdained to borrow from the Koran the immaculate conception of his virgin mother. Yet Jesus was a mere mortal, and at the day of judgment his testimony will serve to condemn both the Jews that reject him as a prophet, and the Christians who adore him as the Son of God. The malice of his enemies aspersed his reputation and conspired against his life; but their intention only was guilty; a phantom or a criminal was substituted on the cross; and the innocent saint was translated to the seventh heaven. During some hundreds of years, the gospel was the way of truth and salvation; but the Christians insensibly forgot both the laws and the example of the founder of their faith; and Mohammed was instructed by the Gnostics * to accuse the church as well as the synagogue of corrupting the integrity of the sacred text. Moses and Christ rejoiced in the assurance of a future prophet, more illustrious than themselves; the evangelical promise of the Paraclete, or holy spirit, was prefigured in the name † and accomplished in the person of Mohammed, the greatest and the last of the apostles of God. The inspirations of the Hebrew prophets might not be incompatible with the exercise of their reason and memory; and the diversity of their genius is strongly marked in the style and composition of the prophetic books of the Bible. But Mohammed was content with a character more humble, yet more sublime, of a simple editor. The substance of the Koran, according to himself or his disciples, is uncreated and eternal, subsisting in the essence of the Deity, and inscribed

* One of the most influential and learned of the primitive Christian sects.

† This arises merely from a play upon words, their making the word *παρακλήτος* afford the etymology of the name Mohammed or Mahomet.

with a pen of light on the table of his everlasting decrees. A paper copy in a volume of silk and gems was brought down to the lowest heaven by the angel Gabriel, who, under the Jewish economy, had been despatched on the most important errands: and this trusty messenger successively revealed the chapters and verses to the Arabian prophet. Instead of a perpetual and perfect measure of the divine will, the fragments of the Koran were produced at the discretion of Mohammed; each revelation is suited to the exigencies of his policy or passion; and all contradiction is removed by the saving maxim that any text of scripture is abrogated or modified by any subsequent passage. The word of God and his apostle was diligently recorded by his disciples on palm leaves, and the shoulder-bones of mutton; and the pages, without order or connection, were cast into a domestic chest in the custody of one of his wives. Two years after the death of Mohammed, the sacred volume was collected and published by his friend and successor, Abubeker. The work was revised by the caliph Othman, in the thirtieth year of the Hegira; and the various editions of the Koran assert the same miraculous privilege of a uniform and incorruptible text. In the spirit of enthusiasm or of vanity, the prophet rests the authority of his mission on the merits of his book; boldly challenges men and angels to imitate the beauties of a single page; and presumes to assert that God alone could dictate this incomparable performance. This argument, doubtless, is most powerfully addressed to a devout Arabian, whose mind is enthusiastic with faith and rapture; whose ear is delighted with the music of sounds; and who by his ignorance is incapable of comparing the productions of human genius. The harmony and copiousness of the Koran will not reach, in a translation, the English scholar; he will peruse with impatience the endless incoherent rhapsody of fable and precept and declamation, which seldom excites a sentiment or an idea, which sometimes crawls along the dust, and is sometimes lost in the clouds. The divine attributes exalt the fancy of the Arabian prophet; but his loftiest strains must yield to the sublime simplicity of the book of Job, composed at an early age in the same country, and probably in a dialect of the same language; and, indeed, it might well be asked, if the composition of the Koran exceed the faculties of man, to what superior intelligence should we ascribe the Iliad of Homer, or the discourses of Cicero.

The sayings of Mohammed were regarded as so many lessons of truth; his actions as so many examples of virtue; and the public and private memorials were preserved by his wives and companions. At the end of two hundred years the *Sonna*, or oral law, was determined and consecrated by the labors of Al Bochari, who discriminated

7,275 genuine traditions from a mass of 300,000 reports of a more doubtful or a spurious character. Each day the pious collector prayed in the temple of Mecca and performed his ablutions with the holy waters of Zemzem (the holy well in the Caaba), the pages were successively deposited upon the pulpit and the sepulchre of the apostle; and the work has been approved by the four orthodox sects of the Sonnites.

The mission of the ancient prophets, of Moses and Jesus, had been confirmed by many splendid prodigies; and Mohammed was repeatedly urged by the inhabitants of Mecca and Medina to produce a similar evidence of his divine mission; to call down from heaven the angel or the volume of his revelation, to create a garden in the desert or to kindle a conflagration in the unbelieving city. As often as he is pressed by the Koreish he involves himself in the obscure boast of vision and prophecy, appeals to the internal proof of his doctrine, and shields himself behind the providence of God, who refuses those signs and wonders that would depreciate the merit of faith, and aggravate the guilt of infidelity. But the modest or angry tone of his apologies betrays his weakness and vexation; and these passages of scandal go to establish the integrity of the Koran.

The followers of Mohammed are more assured than he was himself of his miraculous gifts, and their confidence and credulity increase as they are farther removed from the time and place of his spiritual exploits. They believe or affirm that trees went forth to meet him; that he was saluted by stones, that water gushed from his fingers; that he fed the hungry, cured the sick, and raised the dead; that a beam groaned to him; that a camel complained to him; that a shoulder of mutton informed him of its being poisoned; and that both animate and inanimate nature were equally subject to the apostle of God.

His *dream* of a nocturnal journey is seriously described as a real and corporeal transaction. A mysterious animal, the Borak, conveyed him from the temple of Mecca to that of Jerusalem; with his companion Gabriel he successively ascended the seven heavens, and received and repaid the salutations of the patriarchs, the prophets, and the angels, in their respective mansions. Beyond the seventh heaven Mohammed alone was permitted to proceed; he passed the veil of unity, approached within two bow-shots of the throne, and felt a cold that pierced him to the heart when his shoulder was touched by the hand of God. After this familiar though important conversation he again descended to Jerusalem, remounted the Borak, returned to Mecca, and performed in the tenth part of a night the journey of (according to the common opinion) perhaps thousands of years.

According to another legend the prophet confounded in a national assembly the malicious charge of the Koreish. His resistless word split asunder the orb of the moon; the planet, obedient, stooped from her station in the sky, accomplished the seven revolutions round the Caaba, saluted Mohammed in the Arabian tongue, and sud denly contracting her dimensions, entered at the collar and issued forth through the sleeve of his shirt. The vulgar are interested in these marvellous tales, but the gravest of the Mussulman doctors imitate the modesty of their master and indulge a latitude of faith or allegorical interpretation.

In the times of idolatry the precincts of Mecca enjoyed the rights of sanctuary; and in the last month of each year the city and the Caaba were crowded with a long train of pilgrims, who presented their vows and offerings in the temple. Mohammed, through prejudice, or policy, or fanaticism, sanctified those ancient rites of the Arabians, so that the same rites which are now practised by the faithful Mussulman were invented and practised in the times of superstition and idolatry. At an awful distance they cast away their garments; seven times with hasty steps they encircled the Caaba, and kissed the black stone; seven times they visited and adored the adjacent mountains; seven times they threw stones into the valley of Mina; and the pilgrimage was accomplished, as at the present, by a sacrifice of sheep and camels, and the burial of their hair and nails in the consecrated ground. But the precepts of Mohammed himself inculcate a more simple and rational piety; prayer, fasting, and alms are the religious duties of a Mussulman; and he is encouraged to hope that prayer will carry him half way to God, fasting will bring him to the door of his palace, and alms will give him admittance. According to the tradition of the nocturnal journey the apostle in his personal conference with deity was commanded to impose on his disciples the daily obligation of fifty prayers. By the advice of Moses he applied for an alleviation of this intolerable burden; the number was gradually reduced to five, without any dispensation of business, or pleasure, or time, or place. The devotion of the faithful is repeated at daybreak, at noon, in the afternoon, in the evening and at the first watch of the night; and in the present diminution of religious fervor our travellers are sometimes edified by the profound humility and attention of the Turks and Persians. Cleanliness is the key of prayer; the frequent washing of the hands, the face and the body which was practised of old by the Arabs, is solemnly enjoined by the Koran; and a permission is formally granted to supply with sand the want of water in the Arabian deserts or elsewhere. The words and attitudes of supplication, as it is performed either sitting, or stand-

ing, or prostrate on the ground, are prescribed by custom or authority; but the prayer is poured forth in short and fervent ejaculations; the measure of zeal is not exhausted by a tedious liturgy; and each Mussulman for his own person is invested with the character of a priest. Among the theists who reject the use of images it has been found necessary to restrain the wanderings of the mind by directing the eye and the thought to a Kebla, or visible point of the horizon. The prophet was at first inclined to gratify the Jews with the choice of Jerusalem; but he soon displayed a more natural partiality, and five times every day the eyes of the nations at Astracan, at Delhi, and at Fez are devoutly turned towards the holy temple of Mecca. Yet every spot for the service of God is equally pure; the Mohammedans indifferently pray in their chambers or on the street. As a distinction from the Jews and Christians the Friday of each week is set apart for the useful institution of public worship; the people are assembled in the church; and the *Imam*, some respectable elder, ascends the pulpit to begin the prayer and pronounce the sermon. But the Mohammedan religion is without priesthood or sacrifice;* and the independent spirit of fanaticism or pure religion looks down with contempt on the ministers and the slaves of superstition. The voluntary penance of the ascetic Christians, the torment and glory of their lives, was odious to a prophet who censured in his companions a rash vow of abstaining from flesh, and women, and sleep, and firmly declared that he would suffer no monks in his religion. Notwithstanding he instituted in each year a fast of thirty days, and strenuously recommended the observance as a discipline which purifies the soul and subdues the body, as a salutary exercise of obedience to the will of God and his apostle. During the month of Ramadan, from the rising to the setting of the sun, the Mussulman abstains from eating and drinking, and women, and baths and perfumes, from all nourishment that can restore his strength, from all pleasure that can gratify his senses. In the revolution of the lunar year, the Ramadan coincides alternately with the winter cold and the summer heat; and the patient martyr, without assuaging his thirst with a drop of water, must await the close of a tedious and sultry day.

The interdiction of wine, peculiar to some orders of priests and hermits, is converted by Mohammed alone into a positive and general law; and a very considerable portion of the inhabitants of the globe have abjured at his command the use of that salutary though dangerous liquor. These painful restraints are doubtless violated by the

* Although sacrifice forms no part of the ordinary Mohammedan ritual yet, as mentioned above, Mohammed retained, and the Koran sanctions, the sacrifice of sheep and camels at Mecca, with which the pilgrims who assemble there achieve their ceremonial.

libertine, and eluded by the hypocrite; but the legislator by whom they were enacted cannot, indeed, be accused of alluring his proselytes by the indulgence of their sensual appetites.

The charity of the Mohammedans extends to the inferior animals, and the Koran repeatedly inculcates, not as a merit, but as an indispensable duty, the relief of the indigent and unfortunate.

Mohammed is perhaps the only lawgiver who has defined the precise measure of charity; the standard may vary with the degree and nature of property, as it consists either in money, in corn, or cattle, in fruits or merchandise. But the Mussulman does not accomplish the law unless he bestows a tenth of his revenue for the needy; and if his conscience accuses him of fraud or extortion, the tenth, under the idea of restitution, is enlarged to a fifth. Such a benevolent law must be productive of excellent effects, since men are forbidden to injure or oppress those whom they are bound to assist.

The two articles of belief, and the four practical duties of Islam, are guarded by rewards and punishments; and the faith of the Mussulman is devoutly fixed upon the event of the judgment and the last day. The prophet has not determined the moment of that awful catastrophe, though he darkly announces the signs both in heaven and earth which will precede the universal dissolution, when life shall be destroyed, and the order of creation confounded in the primitive chaos. At the blast of the trumpet new worlds shall start into being; angels, genii, and men shall arise from the dead; and the human soul shall again be united to the body. The doctrine of the resurrection, as we have seen, seems to have been entertained by the ancient Egyptians; and in accordance with this belief their dead were embalmed, and their pyramids constructed to preserve the ancient mansion of the soul during a period of three thousand years. But the attempt is evidently partial and unavailing, and it is with a more philosophical spirit that Mohammed relies on the omnipotence of the Creator, whose word can reanimate the breathless clay, and collect the innumerable atoms which no longer retain their form or substance. The reunion of the soul and body will be followed by the final judgment of mankind; and in his representation of what will take place on that momentous occasion the prophet has faithfully copied the magian picture of the slow and successive operations of an earthly tribunal. Mohammed held out the hope of salvation, and of a favorable sentence in the last day, to all who would believe in God, and accomplish good works. In the idiom of the Koran the belief of God is inseparable from that of Mohammed; the good works are those which he has enjoined, and the two qualifications imply the profession of Islam, to which all nations and all sects are equally

invited. The spiritually blind, though excused by ignorance, and distinguished by virtue, will be scourged with everlasting torments; and Mohammed shed tears over the tomb of his mother, for whom he was forbidden to pray, displaying thereby a striking contrast of humanity and enthusiasm. The doom of the infidels is common, the measure of their guilt and punishment is determined by the degree of evidence which they have neglected, and by the magnitude of the errors which they have entertained; the lowest hell is reserved for the heartless hypocrites, who have assumed the mask of religion. After the greater part of mankind have been condemned for their opinions the true believers will be judged by their actions. The good and evil of each Mussulman will be accurately weighed in a real or allegorical balance; and a singular mode of compensation will be allowed for the payment of injuries; the aggressor will restore an equivalent of his own good actions for the benefit of the person whom he has wronged; and if he should be destitute of any good moral property the weight of his sins will be loaded with an adequate share of the demerits of the sufferer. According as the shares of guilt or virtue shall preponderate the sentence shall be pronounced, and all without distinction will pass over the sharp and perilous bridge of the abyss; but the innocent, treading in the footsteps of Mohammed, shall gloriously enter the gates of paradise, while the guilty shall fall into the first and mildest of the seven hells. The term of expiation will vary from nine hundred to seven thousand years; but the prophet has judiciously promised that all his disciples, whatever may be their sins, shall be saved by their own faith, and his intercession, from eternal condemnation. It is not surprising that superstition shall act most powerfully on the fears of her votaries, since the human imagination can paint with more energy and vividness the misery than the bliss of a future life. With the two simple elements of darkness and fire a sensation of pain is created, which may be aggregated to an infinite degree by the idea of endless duration. But our idea of the continuity of pleasure operates with an opposite effect, and many of our present enjoyments are obtained from a relief or comparison of evil. It is natural enough that an Arabian prophet should expatiate with rapture on the groves, the fountains, and the rivers of Paradise; but instead of inspiring the blissful inhabitants with a liberal taste for harmony and science, conversation and friendship, he idly celebrates the pearls and diamonds, the robes of silk, marble palaces, dishes of gold, rich wines, artificial dainties, numerous attendants, and the whole train of sensual and costly luxury which becomes insipid to the possessor even in the short period of this mortal life. Seventy-two *Houris*, or black-eyed maidens of resplend-

ent beauty, blooming youth, virgin purity, and exquisite sensibility, will be created for the use of the meanest believer; a moment of pleasure will be prolonged to a thousand years, and his faculties will be increased a hundred-fold to render him worthy and capable of his felicity. Notwithstanding a vulgar prejudice the gates of heaven will be open to both sexes; but Mohammed has not specified the male companions of the female elect, lest he should either alarm the jealousy of their former husbands, or disturb their felicity by the suspicion of an everlasting marriage. This representation of a carnal paradise has provoked the indignation, perhaps the envy, of the Christian monks; they declaim against the impure religion of Mohammed; but the modest expounders of the Mohammedan faith have recourse to the excuse of figures and allegories. A large party, however, adhere without shame to the literal interpretation of the Koran; useless, say they, would be the resurrection of the body unless it were restored to the possession and exercise of its noblest faculties; and the union of intellectual and sensual enjoyments is necessary to complete the happiness of the double animal, the perfect man. Yet the joys of the Mohammedan paradise are not to be confined to the indulgence of luxury and appetite, and the prophet has expressly declared that all meaner happiness will be forgotten and despised by the saints and martyrs who shall be admitted to the beatitude of the divine vision.

They who refer to vision or allegory the pictures of the future state, as of paradise and hell, the nocturnal journey to heaven by the way of the temple at Jerusalem, the revelation of the Koran in chapters and verses by Gabriel to Mohammed, &c., are doubtless the more correct; but there are some representations, which may seem irreconcilable either with allegory or reality. Some of these representations were doubtless filled out and enlarged from the mythologies of other eastern nations; but would not the conquest of the eastern nations, including Jerusalem and its temple—(that temple which above all others in ancient times was distinguished for the worship of the one supreme God)—by the Mohammedan arms be a fulfilment of the prophetic vision of a nocturnal visit to Jerusalem, and through the temple, to the seventh heaven, by Mohammed?

The key to the success of Mohammed's movement, and ultimately to the success of the Mohammedan arms, was the doctrine of one infinite and invisible God which the prophet preached, a doctrine which commends itself to, and is at once approved by the human understanding. The prophet being transported in visions, or having transported himself, as it were, in allegory, from Mecca, the very seat and centre of idol worship, to Jerusalem and its temple, where the one invisible God was alone wont to be worshipped, would at once

symbolize the character of his mission as against idolatry, and his being taken up to the seventh heaven would indicate the complete success of his mission and movement. His feeling the cold hand of God pressing upon him, and having to retire when within two bow-shots of the throne, appears to indicate that he himself would die, and that the cold earth would receive him before his Mohammedans should succeed in taking Jerusalem and the temple; but he being taken up to the seventh heaven, and admitted to the presence and converse of Deity, would still indicate complete success for his mission. And it is a fact that Jerusalem was taken in the reign of the *third* caliph, Omar,* the *second* successor of Mohammed, so that the latter was within two prophetic bow-shots of the throne, and Omar himself worshipped in the temple, though not after the manner of the Jews or Christians. And would not the vision of paradise and of the dark-eyed maidens, the pearls and diamonds, the robes of silk, marble palaces, rich wines, artificial dainties, numerous attendants, and the like, be amply fulfilled in the spoils not only of inanimate things, but of human beings, comprising myriads of the most beautiful and delicate females, which fell into the hands of the Mohammedans, Arabians and Turks, on their conquest of the nations and the great cities of the East, especially of the Eastern Roman Empire and Persia? These conquests were continued from the rise of Mohammed, in the beginning of the seventh century, for a period of nearly nine hundred years, to the capture of Constantinople by the Turks in 1453, and for some time after they were pushed forward in the Roman Empire in Europe. And would not his idea of hell be amply realized in the captivity, the enslavement, the despair, and the destruction of those who opposed the Mohammedan arms during that long period and in that long series of conquests? The history of the Mohammedan conquests doubtless will tell. It seems very plain that the prophet or some one else connected with his movement, but most probably himself, had a series of visions, indicating the conquest of the Eastern Roman Empire, and the other eastern countries, by his followers, in which the main idea would be the subversion of idolatry and the establishment of the worship of the true God in its stead; although he, or whoever experienced them, may not have fully understood at the time their import. Yet we must distinguish between these visions and some that seem clearly enough to have been falsely attributed to Mohammed.

It is peculiar to Mohammedanism, among all religions, always to have enforced its tenets with the sword. The Mussulmans came

* Mahomet died in 632; Jerusalem was taken in 637.

with the sword in one hand, the Koran in the other, and left no alternative between the acceptance of the faith of God and His apostle, and submission and tribute, or extermination. Mohammedanism swept like a destructive wave over the eastern, and to a great extent over the western nations, trailing the idols in the dust and grinding them to powder; yea, and where it did not destroy idolatry it rebuked it, and it remains a standing rebuke to it to-day. In the Caaba, or ancient temple of Mecca alone 360 idols were destroyed by Mohammed; figures of men, eagles, lions, and antelopes, etc., which were consecrated from time immemorial by different Arabian tribes, and those that were destroyed by the Mohammedans in both Pagan and Christian temples over the wide extent of the globe where their arms have prevailed could, perhaps, hardly be numbered.

After the apostle had undertaken to propagate his religion by the sword, he carried out his project with the greatest zeal and effect, though this was often attended, as seems inevitable in the case of an antagonist fighting for the success of his cause, if not for his life, with great cruelty. The prophet is represented to say, at the outstart of his mission: "The sword is the key of heaven and of hell; a drop of blood shed in the cause of God, a night spent in arms, is of more avail than two months spent in fasting and prayer; whosoever falls in battle, his sins are forgiven; at the day of judgment his wounds shall be resplendent as vermilion, and odoriferous as musk; and the loss of his limbs shall be supplied by the wings of angels and cherubim." Thus, the intrepid souls of the Arabs were fired with enthusiasm; the picture of the invisible world was painted vividly upon their imagination; and the death which they had been wont to despise became an object of hope and desire. Before the battle of Yermuk, which took place a few years after Mohammed's death, where they defeated the Roman army with prodigious slaughter, the exhortation of the general was brief and forcible: "Paradise is before you, the devil and hell fire in your rear." Also, the doctrine of fate and predestination, inculcated so strongly in the Koran, left the followers of Mohammed to advance fearlessly to battle; for their idea was that there is no danger where there is no chance; they were ordained to perish in their beds, or they were safe and invulnerable amid the darts of the enemy.

The following is the most glaring specimen of the cruelties of Mohammed himself. There are said to have been seven hundred Jews who had joined with Koreish in resisting the prophet; after a siege of twenty-five days they surrendered. On their surrender a venerable elder, whom they supposed an old acquaintance and friend, and to whom they had appealed, pronounced the sentence of

their death. The seven hundred were dragged in chains to the market-place of the city, and the prophet "beheld with an inflexible eye the destruction of his captive enemies." There may possibly be another version of this story, which would reflect more favorably upon the character of Mohammed; and if this version be true, how do we know but that the conduct of these Jews had entitled them to harsh treatment at his hands, in retaliation for the injury they might or meant to have done his cause, although he might have been well satisfied with a milder proceeding towards them? If the story be true that these Jews were put to death with such aggravated cruelty as they are represented to have been, and that act had been authorized and justified by the laws of war, while we do not attempt to justify it, it will not still appear so bad as the slaughter of the four thousand five hundred Saxon captives by Charlemagne, whom that cruel tyrant had beheaded on the same spot. And if Mohammed is recognized by his followers as the apostle of God, Charlemagne is recognized as a Saint of the Roman Calendar; and this saint with a rare felicity is crowned with the praises of some of the historians and philosophers of an enlightened age.*

But we are to bear in mind that Mohammed in his extirpation of idolatry, claims to follow the example of the Israelites in their extirpation of it from the land of Canaan; and the same bloody precepts so repeatedly inculcated in the Koran are ascribed by the author to the books of Moses and even the Gospels. The mild tenor of the Gospels, should, however, have explained to him the text that Jesus did not bring peace on earth, but a sword. But the military laws of the Hebrews are even more rigid than those of the Arabian legislator. The Lord of hosts marched in person before the Israelites; if a city resisted their summons the males without distinction were put to the sword; the seven nations of Canaan were devoted to destruction; and neither repentance nor conversion could shield them from their inevitable doom that no creature within their confines should be left alive. The fair option of friendship, or submission, or battle, was proposed to the enemies of Mohammed. If they professed the creed of Islam they were admitted to all the temporal and spiritual benefits of his primitive disciples, and marched under the same banner to extend the religion which they had embraced. The clemency of the prophet was decided by his interest, yet he rarely insulted a prostrate enemy; and he appears to promise that on the payment of a tribute the least guilty of his unbelieving subjects

* Mabley, "Observations on the History of France;" Voltaire, "General History;" Robertson, "History of Charles V.;" Montesquieu, "Spirit of the Laws;" etc.

might be indulged in their worship, or at least in their imperfect faith. The choice of Jerusalem for the first Kebla of prayer discovers the early propensity of Mohammed in favor of the Jews. Their rejection of him converted his friendship into opposition and resentment, which he caused that unhappy people to experience to the last days of his life; and in the double character of an apostle and a conqueror his persecution was extended to both worlds. This resentment to the Jews is, however, thought to have been partly caused by his serious belief that he had been poisoned at Chaibar by a Jewish female.

If we inquire into the causes which operated on Mohammed and led him to adopt and to follow the course which he did in the propagation of his faith, and the extension of his empire, we shall find them to be mainly two. First, he felt fully impressed from his early life with a divine mission for the extirpation of idolatry, and the promulgation of the faith of one God. This sprung from the principle of truth within him, which is also in every human being, by his holy and devotional manner of life gradually ripening to perfection, and which was the great cause. We cannot say that from his early youth he was instructed in the faith of the divine unity, for his mother Amina, who was a Jewess, and who would have been likely to have so instructed him, died while he was an infant, as did also his father and his grandfather. But he was in his youth of a pious contemplative disposition, of a mind susceptible of the impressions of truth, if perchance he could only come by them in any way. During the first twenty-five years of his life or before he entered with Cadijah, whom he afterwards married, he may have been to a great extent surrounded with Jewish and Christian influences, for these two sects were abundantly represented in Mecca, his native city, at that time. The unity of God is an idea most congenial to nature and reason; and intercourse and conversation with the Jews and Christians would teach him to despise and detest the idolatry of Mecca. He would feel it his duty as a man and a citizen to rescue and save his country from the dominion of sin and error. The teachings, therefore, which he would receive from the Jews and Christians, and from the Jewish and Christian Scriptures, especially from the former—for the Scriptures of the Old Testament more particularly were those which he took for the rule and guide of his life — would be the second cause which might be assigned for Mohammed taking the course which he did, and which, speaking correctly, would be only an accidental cause; but though accidental, none the less effectual; for if Mohammed had been born and raised in other circumstances than those in which he was, that is, if he had

been born and brought up in a place where he would not be surrounded or influenced by Jews or Christians, but only by Arabian idolaters, although he might be genuinely good, morally, in his youth and live righteously during his life, yet as to his religion he would be likely to live and die not remarkably different from his idolatrous neighbors. To his ignorance and prejudice is to be attributed the peculiar interpretation which he gave to the Hebrew Scriptures. It is well known that Mohammed was not well learned; it is even thought by some from certain passages that occur in the Koran that he could not read nor write; but there seems to us to be good evidence of his being able to do both, though probably not very perfectly. The extent of his learning then did not permit him to comprehend those Scriptures, and so, as an ignorant, illiterate man naturally would, he interpreted literally both the Old and the New Testament. This literal interpretation of the Old Testament satisfied the prejudice of the Arabs, which they had in common with the Jews, of tracing back their pedigree to the first man, the Arabs through Ishmael, the Jews through Isaac. And not only so, but Mohammed gave his own peculiar interpretation to the apocryphal books of the Jews and Christians; and the result of all these peculiar and various interpretations we find in the life and religious system of Mohammed in the Koran. It is not at all surprising, therefore, that Mohammed, taking the books of Moses for his guide in the extirpation of idolatry and the promulgation of his faith, should take the very course he did and propagate it by the sword. The wonder is, if any, that he proceeded so gently as he did against the idolators; but it is probable that his conduct was moderated by the mild and gentle teachings of the Christian gospels. Ignorance is the mother of all false systems of religion, and Mohammed, in so far as he has given a *false meaning* to the Scriptures, and has put them before the world in the Koran, with a mixture of Arabic and other Eastern fables, in this false light, is not improperly styled a false prophet; in other respects he was worthy of the name of a true prophet and a true man. As for his system of religion, in so far as it is good, and there are many good points in it, it speaks for itself; and in so far as it is not good, and there are some things practised in it which are unnecessary and wrong, it also is judged by the common sense of an enlightened mankind.

There are many things in the life of the Arabian prophet which are indeed worthy of example. When Mohammed might have been a king he despised the pomp of royalty; the apostle submitted to the menial offices of the family; he kindled the fire, swept the floor, milked the ewes, and mended with his own hand his shoes and his

woollen garment. Disdaining the life of a monk or the penance of a hermit, he observed without effort or vanity the abstemious diet of an Arab and a soldier. On certain occasions he feasted his companions with rustic and hospitable plenty, but in his domestic life many weeks would elapse without a fire being kindled on his hearth. The interdiction of wine was confirmed by his example; he used a sparing allowance of barley bread to satisfy his hunger; he delighted in the taste of milk and honey; but his ordinary food consisted of dates and water. Perfumes and women were the two sensual enjoyments which he took pleasure in, and which his religion did not forbid. The social life of the Mohammedans is regulated by the civil and religious law of the Koran; the boundless license of polygamy is reduced to four legitimate wives or concubines; but Mohammed dispensed himself from the laws which he had imposed upon his followers, and still, while not disposed to favor polygamy in any way, if we remember the seven hundred wives and three hundred concubines of the wise Solomon, we shall be inclined to applaud the moderation of the Arabian prophet who espoused no more than fifteen or seventeen wives.

In closing this account of the ancient religions, we may state that the systems of mythology of the ancient nations varied according to the genius of the different peoples. The experience of mankind in all nations* and ages demonstrates that man acknowledges and recognizes the existence of a Being infinitely greater every way than himself, and with which he is himself in some way connected. This knowledge has its origin in an innate sense, which is strengthened and developed, and brought to a full conviction by the daily observation and experience of life. This Infinite Being the different ancient nations represented in so many different ways according to the view which their peculiar genius or turn of character, and their ignorance of the constitution of nature and of the true God, caused them to take of Him.

Thus the Egyptians acknowledged and worshipped Deity not only in personifications, but especially in the animal creation.

The Iranians, that is, the Medes, Persians, and Bactrians, acknowledged Deity first under the abstract idea of uncreated Time, then under metaphysical personifications of good and evil, light and darkness, and fire, until they ultimately came to worship material fire, which they continue yet to some extent to do.

The Indians, or Hindoos, at different periods of their history conceived of the Deity differently. They, first, according to their ex-

* The ancient Chinese can hardly be called an exception to this statement.

tant literature, worshipped the Invisible and Infinite Being which they conceived to have given birth to all visible and finite things. In another and succeeding age they change this simple and original notion of Deity into polytheism, and worship the stars, the elements, and all the powers of nature as divine beings that had emanated from one supreme being. They now recognize Brahma, himself conceived as a created being, who, with the assistance of the Pradshaptis, brought into existence all the various living creatures. They conceive also eight spirits, under whose guardianship is nature in its various departments or localities. Then, according to their national epics, they conceive of the gods in definite forms descending to the earth and taking part in the concerns of men, and worship their images set up in temples. Brahma (neuter) now appears as the supreme deity under the three names or characters of Brahma the creator, Siva the destroyer, Vishnu the preserver. Then comes an age when one of these three deities or characters of deity is itself worshipped as the Supreme God.

Then arose Buddhism in the midst of Brahminism, which taught that the power of Buddha or perfect man was greater than that of Brahma, and which resulted (though it does not seem to have been so intended by its founder) in the worship of Buddha, a deified man, and a host of other deified men. And still the worship of Deity, as variously symbolized by differently formed idols, is practised by the Hindoos.

The Babylonians and Phœnicians acknowledged the Deity in the heavenly bodies, which they conceived in human forms, with all the faculties and passions of human nature.

The ancient Chinese acknowledged Deity especially in the moral, pious and dutiful life of their people; in more recent times they have, to a large extent, fallen into the idolatry of Buddhism.

The ancient Pelasgians, Greeks, and Romans acknowledged Deity in the powers of nature, which they conceived in the forms of human beings, male and female, and which they honored in various ways, even to the extent of human sacrifices.

The Germans and other northern nations acknowledged Deity especially in the sun, moon, earth and fire.

The Hebrews acknowledged Deity as a being aside from and above nature, but still in some way connected with nature and themselves, which they indistinctly personified under the names Elohim and Jehovah; and also under visible material forms as represented in the calf-idols at Bethel and Dan.

The American Indians acknowledge Deity as the great spirit pervading all nature, ever and everywhere present.

As for the mythological system of the Druids, their silence and secrecy concerning it, in the practice of their worship, and in leaving no literary records, prevent us from having any definite knowledge of it.

The Mohammedans acknowledge Deity as a being infinite and invisible, omnipresent and omnipotent.

Trinitarian Christians, a name which embraces the three great branches of Christians, Greek, Latin, and Reformed, as they all profess the faith of the Trinity, acknowledge and worship Deity as existing in some mysterious way, which they describe as three persons united in one being, so that there are three, and still there is only one; a being which, indeed, as they have explained it, is only imaginary, or cannot be understood; but when rightly explained the Trinity sets forth a reality; for who will not understand that a father must be a son, and may, if he but will, be a holy person or influence? If he be not a good, and true, and holy person he never will be likely to understand himself as representing the Trinity. The Trinity is not three persons in one but one person in three characters, for the purpose we believe of illustrating the eternal Sonship of Christ; and each human being may represent the Trinity.

Review of the account of Jesus Christ, including the account of John the Baptist as set forth in the four Gospels, compared and examined from the original Greek.

We here deem it necessary to give a Review, *critical* and *explanatory*, of the account of Jesus Christ as we find it set forth in the four gospels: First as to the account of His birth and life until He has chosen his twelve apostles; and to do this the more fully and intelligibly we shall have to give the account of the forerunner, John the Baptist, as the early histories of the two characters are somewhat interwoven with each other. Second, and following this, we shall give a review of the miracles of Jesus as we find them recorded, in the four gospels. And, thirdly, a review of the account of the preliminaries to the trial, the trial, the crucifixion, resurrection, and post-resurrection appearances of Jesus, as set forth in the four gospels. And, fourthly, we shall give a short review and examination of the book of the Acts of the Apostles. In our review of the account of John the Baptist and of Christ we shall have to transcribe in full from the four gospels the passages which bear on these subjects so that the text itself shall be before the eyes of our readers for them to compare and judge of, not only in part but in whole before pronouncing any opinion concerning them; and in each case we shall

compare the several accounts with each other, show wherein they agree or disagree, and illustrate and explain them.

We shall carry on the disquisition throughout *in accordance with the popular idea of the gospels being authentic history*, and see how matters stand with respect to them on that ground.

First, as to the birth of John, and the birth and life of Christ until He has chosen His twelve apostles. In Luke's gospel only is there an account given of the birth of John; and therefore we shall begin with Luke; otherwise we should commence with the first gospel in order. *According to Luke, chap. I.*, it is: "Forasmuch as many have taken in hand to set forth in order a declaration of those things which are most assuredly believed among us, even as they delivered them unto us, which from the beginning were eye-witnesses, and ministers of the word; it seemed good to me also, having had perfect understanding of all things from the very first, to write unto thee in order, most excellent Theophilus, that thou mightest know the certainty of those things, in which thou hast been instructed.

There was in the days of Herod, the king of Judæa, a certain priest named Zacharias, of the course of Abia: and his wife was of the daughters of Aaron, and her name was Elisabeth. And they were both righteous before God, walking in all the commandments and ordinances of the Lord blameless. And they had no child, because that Elisabeth was barren, and they were now well advanced in years. And it came to pass, that as he executed the priest's office before God in the order of his course, according to the custom of the priest's office, his lot was to burn incense when he went into the temple of the Lord. And the whole multitude of the people were praying without at the time of incense. And there appeared unto him an angel of the Lord standing on the right side of the altar of incense. And when Zacharias saw him he was troubled, and fear fell upon him. But the angel said unto him: fear not, Zacharias; for thy prayer is heard; and thy wife Elisabeth shall bear thee a son, and thou shalt call his name John. And thou shalt have joy and gladness, and many shall rejoice at his birth. For he shall be great in the sight of the Lord, and shall drink neither wine nor strong drink; and he shall be filled with the Holy Spirit even from his mother's womb. And many of the children of Israel shall he turn to the Lord their God. And he shall go before him (ἐνώπιον, lit. before his face) in the spirit and power of Elias, to turn the hearts of the fathers to the children, and the disobedient to the wisdom of the just: to make ready a people prepared for the Lord. And Zacharias said unto the angel: Whereby shall I know this? for I am an old man and my wife well advanced in years. And the angel answering said unto

him: I am Gabriel, that stand in the presence of God: and am sent to speak unto thee, and to show thee glad tidings. And behold, thou shalt be dumb, and not be able to speak, until the day that these things shall be performed, because thou believest not my words, which shall be fulfilled in their season. And the people waited for Zacharias and wondered that he tarried so long in the temple. And when he came out he could not speak unto them, and they perceived that he had seen a vision in the temple: for he beckoned unto them and remained speechless. And it came to pass, that, as soon as the days of his ministration were accomplished, he departed to his own house. And after those days his wife Elisabeth conceived, and hid herself five months, saying: Thus hath the Lord dealt with me in the days wherein he looked on me, to take away my reproach among men.

And in the sixth month the angel Gabriel was sent from God to a city of Galilee, named Nazareth, to a virgin espoused to a man whose name was Joseph, of the house of David; and the virgin's name was Mary. And the angel came in unto her and said: Hail, thou that art highly favored; the Lord is with thee: blessed art thou among women. And when she saw him, she was troubled at his saying, and considered in her mind what manner of salutation this should be. And the angel said unto her, Fear not, Mary: for thou hast found favor with God. And, behold, thou shalt conceive in thy womb, and bring forth a son, and shalt call his name Jesus. He shall be great, and shall be called the son of the Highest, and the Lord God shall give unto him the throne of his father David: and he shall reign over the house of Jacob forever; and of his kingdom there shall be no end. Then said Mary to the angel: how shall this be, seeing I know not a man? And the angel answered and said unto her: the Holy Spirit shall come upon thee, and the power of the Highest shall overshadow thee; therefore also that holy thing which shall be born of thee shall be called the Son of God. And, behold, thy cousin Elisabeth, she hath also conceived a son in her old age; and this is the sixth month with her, who was called barren. For with God nothing shall be impossible. And Mary said: Behold the handmaid of the Lord; be it unto me according to thy word. And the angel departed from her. And Mary arose in those days, and went into the hill country with haste, to a city of Juda; and entered into the house of Zacharias, and saluted Elisabeth. And it came to pass, that, when Elisabeth heard the salutation of Mary, the babe leaped in her womb, and Elisabeth was filled with the Holy Spirit: and she spake out in a loud voice, and said: Blessed art thou among women, and blessed is the fruit of thy womb. And whence is this

to me, that the mother of my Lord should come to me? For, lo, as soon as the voice of thy salutation sounded in mine ears, the babe leaped in my womb for joy. And blessed is she that believed: for there shall be a performance of these things which were told her from the Lord. And Mary said: My soul doth magnify the Lord, and my spirit hath rejoiced in God my Saviour. For he hath regarded the low estate of his handmaiden: for, behold, from henceforth all generations shall call me blessed. For he that is mighty hath done to me great things; and holy is his name. And his mercy is on them that fear him, from generation to generation. He hath showed strength with his arm: he hath scattered the proud in the imagination of their hearts. He hath put down the mighty from their seats, and exalted them of low degree. He hath filled the hungry with good things; and the rich he hath sent away empty. He hath helped his servant Israel, in remembrance of his mercy; as he spoke to our forefathers, Abraham, and to his seed forever. And Mary abode with her about three months, and returned to her own house.

Now Elisabeth's full time came that she should be delivered; and she brought forth a son. And her neighbors and her cousins heard how that the Lord had showed great mercy upon her; and they rejoiced with her. And it came to pass, that on the eighth day they came to circumcise the child; and they called him Zacharias, after the name of his father. And his mother answered and said: Not so; but he shall be called John. And they said unto her: There is none of thy kindred that is called by this name. And they made signs to his father, how he would have him called. And he asked for a writing table, and wrote, saying; His name is John. And they all marvelled. And his mouth was opened immediately, and his tongue loosed, and he spake, praising God. And fear came on all that dwelt round about them: and all these sayings were noised abroad throughout all the hill country of Judæa. And all they that heard them laid them up in their hearts, saying: What manner of child shall this be! And the hand of the Lord was with him. And his father Zacharias was filled with the Holy Spirit, and prophesied, saying: Blessed be the Lord God of Israel; for he hath visited and redeemed his people, and hath raised up a horn of salvation for us in the house of his servant David; as he spake by the mouth of his holy prophets, which have been since the world began: that we should be saved from our enemies, and from the hand of all that hate us; to perform the mercy promised to our fathers, and to remember his holy covenant, the oath which he sware to our father Abraham, that he would grant unto us that we, being delivered out of the hand of our enemies, might serve him without fear, in holiness and righteousness before

him, all the days of our life. And thou, child, shalt be called the prophet of the Highest: for thou shalt go before the face of the Lord to prepare his way; to give knowledge of salvation unto his people by the remission of their sins, through the tender mercy of our God; whereby the dayspring from on high hath visited us; to give light to them that sit in darkness and in the shadow of death; to guide our feet in the way of peace. And the child grew, and waxed strong in spirit, and was in the desert, till the day of his showing unto Israel."

Remarks on the Preceding.

The foregoing is the only account given in the four gospels of the birth of John, and the annunciation by the angel of the birth of Christ as well as John. Luke, the ascribed writer of the gospel, was not one of the apostles of Christ, nor was he a Jew. Tradition says he was a Gentile, and was born at Antioch in Syria, and ascribes his conversion to St. Paul. But Paul himself was not converted till some years after Jesus of Nazareth was crucified; therefore, is this Gospel considered historical, written by one not a present witness of what he relates? But Christ is not represented to have chosen any of His apostles until He was thirty years of age; and, considering that this gospel was written thirty years later, say A. D. 60, than which it does not appear to have been sooner, how did the writer know that which he here relates concerning John the Baptist and the coming of Christ? But, he says, in the preface to his gospel, verse 2d, that he has received his information from those who from the beginning were eye-witnesses and ministers of the word. By these eye-witnesses one would naturally suppose he meant the apostles. But none of these are represented as having been chosen to accompany Jesus till he was thirty years of age. It seems most probable that the aged Zacharias and Elisabeth must have died before Jesus could have chosen His apostles: for it is said that at the time of the angel's visit to them they were both well advanced in years. Mary, the mother of Jesus, however, is represented still to have remained alive, and to have been a contemporary with the apostles, and to have survived the crucifixion of her son. The only way then in which the writer of the third gospel could have come by this which he here relates to us was by tradition, that is, by its having been delivered orally or written from one to another till it came to him. Zacharias and his wife and Mary might have communicated these facts to John the Baptist, and Jesus,

and the disciples; and these latter might have delivered them to Paul; and thence, or from some other of the disciples, Luke, the writer of the third gospel, might perhaps have derived them; so that there would in any case require to be considerable intercommunication of these facts before they could have come to the ears of the writer, which would not make them as facts any the less facts. But let it be particularly remarked here that the writer states most of this account we give from the first chapter of Luke in the *oratio directa*, that is, he repeats the sentiments delivered by those of whom he is relating, not in his own words, but in the words in which they gave them themselves. He, in short, represents these persons as themselves speaking. Now how could the writer of this narrative know the precise words in which the angel spoke to Zacharias and the latter to the angel in the temple; Luke, ch. I., ver. 11–21? How could he know the precise words in which Elisabeth spoke when she hides herself for five months: verse 25? The precise words in which the angel spake to Mary, or she to the angel; verses 28–38? The precise words in which Elisabeth spoke to Mary, or Mary to Elisabeth in their interview with each other on Mary's visit to Elisabeth's house; verses 42–56? The precise words of the discourse between Elisabeth and her relatives as to the name to be given to the infant, finally called John; verses 58–64? Or the precise words of Zacharias' prophecy which he delivers on having recovered from his dumbness; verses 67–80? These are questions to which we cannot give any reasonable or satisfactory answer, for we do not conceive how in the circumstances he could know what precisely they did say. And besides all this, how does it happen that none of the other gospels gives any account of these things but this; although the ascribed writers of two of them, namely Matthew and John, are represented in Church history as of the number of the twelve apostles? For the want, therefore, of evidence, either internal or external, to prove its historical authenticity, we cannot conclude this narrative as in the main having a literal signification. Still we believe there was some event which gave a foundation to the story, for there was born and has lived such a man as John the Baptist; and how we understand the Gospel narratives, and probably also our idea of inspiration, may be perceived by the careful reader the more clearly as he proceeds.

CONCERNING THE BIRTH OF JESUS CHRIST.

According to *Matthew, ch. I., verse* 18 *to end of chapter:* "Now the birth of Jesus Christ was on this wise: when as his mother Mary

was espoused to Joseph, before they came together she was found with child of the Holy Spirit. Then Joseph her husband, being a just man, and not wishing to make her a public example, was minded to put her away privily. But while he thought on these things behold the angel of the Lord appeared unto him in a dream, saying; Joseph, thou son of David, fear not to take unto thee Mary thy wife; for that which is conceived in her is of the Holy Spirit. And she shall bring forth a son, and thou shalt call his name Jesus; for he shall save the people from their sins. Now all this was done that it might be fulfilled which was spoken of the Lord by the prophet, saying: Behold a virgin shall be with child, and shall bring forth a son, and they shall call his name Emmanuel, which being interpreted, is God with us. Then Joseph being raised from sleep did as the angel of the Lord had bidden him, and took unto him his wife, and knew her not until she had brought forth her first-born son; and he called his name Jesus. *Ch. II.:* Now when Jesus was born in Bethlehem of Judæa in the days of Herod the King, behold there came wise men from the east to Jerusalem, saying: Where is he that is born King of the Jews, for we have seen his star in the east, and are come to worship him. When Herod the king heard these things he was troubled, and all Jerusalem with him. And when he had gathered all the chief priests and scribes of the people together, he demanded of them where Christ should be born. And they said unto him, in Bethlehem of Judæa; for thus it is written by the prophet: And thou Bethlehem, in the land of Judah, art not the least among the princes of Juda; for out of thee shall come a governor that shall rule my people Israel. Then Herod, when he had privily called the wise men, enquired of them diligently what time the star appeared. And he sent them to Bethlehem, and said: Go search diligently for the young child; and when ye have found him, bring me word again that I may come and worship him also. When they had heard the King they departed; and lo, the star which they saw in the east went before them, till it came and stood over where the young child was. When they saw the star they rejoiced with exceeding great joy. And when they were come into the house they saw the young child with Mary its mother, and fell down and worshipped him; and when they had opened their treasures, they presented unto him gifts, gold, frankincense, and myrrh. And being warned of God in a dream that they should not return to Herod, they departed into their own country another way. And when they were departed, behold, the angel of the Lord appeared to Joseph in a dream, saying: Arise, and take the young child and his mother, and flee into Egypt, and be thou there until I bring thee word; for Herod will seek the

young child to destroy him. When he arose he took the young child and his mother by night, and departed into Egypt: and was there until the death of Herod, that it might be fulfilled which was spoken of the Lord by the prophet, saying: Out of Egypt have I called my son. Then Herod, when he saw that he was mocked of the wise men, was exceeding angry, and sent forth and slew all the children that were in Bethlehem, and in all its precincts, from two years old and under, according to the time when he had diligently enquired of the wise men. Then was fulfilled that which was spoken by Jeremy the prophet, saying: In Rama there was a voice heard, lamentation, and weeping, and great mourning: Rachel weeping for her children, and would not be comforted, because they are not.

But when Herod was dead, behold, an angel of the Lord appeareth in a dream to Joseph in Egypt, saying: Arise, and take the young child and his mother, and go into the land of Israel: for they are dead which sought the young child's life. And he arose, and took the young child and his mother, and came into the land of Israel. But when he heard that Archelaus did reign in Judæa in the room of his father Herod, he was afraid to go thither: notwithstanding, being warned of God in a dream, he turned aside into the parts of Galilee. And he came and dwelt in a city called Nazareth: that it might be fulfilled which was spoken by the prophets: He shall be called a Nazarene."

Concerning the same, according to Luke, ch. II.: "And it came to pass in those days that there went out a decree from Cæsar Augustus that all the world should be subjected to a census. And this census was first made when Cyrenius was governor of Syria. And all went to be enrolled, every one into his own city. And Joseph also went up from Galilee, out of the city of Nazareth, into Judæa, unto the city of David, which is called Bethlehem; because he was of the house and lineage of David, to be enrolled with Mary his espoused wife, being great with child. And so it was that while they were there the days were accomplished that she should be delivered. And she brought forth her first-born son, and wrapped him in swaddling clothes, and laid him in a manger, because there was no room for them in the inn. And there were in the same country shepherds abiding in the field, keeping watch over their flocks by night. And, lo, the angel of the Lord came upon them, and the glory of the Lord shone round about them, and they were sore afraid. And the angel said unto them: Fear not, for behold, I bring you good tidings of great joy, which shall be to all people. For unto you is born this day in the city of David a Saviour, which is Christ the Lord. And this shall be a sign unto you: ye shall find the babe wrapped in

swaddling clothes, lying in a manger. And suddenly there was with the angel a multitude of the heavenly host, praising God, and saying: Glory to God in the highest, and on earth peace, good will toward men. And it came to pass, as the angels were gone away from them into heaven, the shepherds said one to another: Let us now go even to Bethlehem, and see this thing which is come to pass, which the Lord hath made known u to us. And they came with haste, and found Mary and Joseph, and the babe lying in a manger. And when they had seen it they made known abroad the saying which was told them concerning the child. And all they that heard it wondered at those things which were told them by the shepherds. But Mary kept all these things and pondered them in her heart. And the shepherds returned, glorifying and praising God for all the things that they had heard and seen, as it was told unto them. And when eight days were accomplished for the circumcising of the child, his name was called Jesus, which was so named of the angel before he was conceived in the womb. And when the days of her purification, according to the law of Moses, were accomplished, they brought him to Jerusalem to present him to the Lord; (as it is written in the Law of the Lord, every male that openeth the womb shall be called holy to the Lord;) and to offer a sacrifice, according to that which is said in the law of the Lord, a pair of turtle-doves or two young pigeons. And behold, there was a man in Jerusalem, whose name was Simeon, and the same man was just and devout, waiting for the consolation of Israel; and the Holy Spirit was upon him. And it was revealed unto him by the Holy Spirit that he should not see death before he had seen the Lord's Christ. And he came by the Spirit into the temple; and when the parents brought in the child Jesus to do for him after the custom of the law, then took he him up in his arms and blessed God, and said: Lord, now lettest thou thy servant depart in peace, according to thy word; for mine eyes have seen thy salvation, which thou hast prepared before the face of all people; a light to lighten the Gentiles, and the glory of thy people Israel. And Joseph and his mother marvelled at those things which were spoken of him. And Simeon blessed them and said unto Mary his mother: Behold this (child) is set for the fall and rising again of many in Israel, and for a sign which shall be spoken against; (yea, and a sword shall pierce through thy own soul also,) that the thoughts of many hearts may be revealed. And there was one Anna, a prophetess, the daughter of Phanuel of the tribe of Aser; she was of a great age, and had lived with a husband seven years from her virginity; and she was a widow of about four-score and four years, who departed not from the temple, but served God with fastings and prayers night

and day. And she coming in that instant gave thanks likewise unto the Lord, and spake of him to all them that looked for redemption in Jerusalem. And when they had performed all things according to the law of the Lord, they returned into Galilee to their own city Nazareth. And the child grew and waxed strong in spirit, filled with wisdom; and the grace of God was upon him. Now his parents went to Jerusalem every year at the feast of the Passover, and when he was twelve years old they went up to Jerusalem after the custom of the feast. And when they had fulfilled the days, as they returned, the child Jesus tarried behind in Jerusalem, and Joseph and his mother knew not of it. But they, supposing him to have been in the company, went a day's journey, and they sought him among their kinsfolk and acquaintance. And when they found him not they turned back again to Jerusalem seeking him.

And it came to pass that after three days, they found him in the temple sitting in the midst of the doctors, both hearing them and asking them questions. And all that heard him were astonished at his understanding and answers. And when they saw him, they were amazed; and his mother said unto him: Son, why hast thou thus dealt with us; behold thy father and I have sought thee sorrowing. And he said unto them: How is it that you sought me? Knew you not that I must be about my father's business? And they understood not the saying which he spake unto them. And he went down with them, and came to Nazareth, and was subject unto them. But his mother kept all these sayings in her heart. And Jesus increased in wisdom and stature, and in favor with God and man."

Remarks on the Preceding.

These are the only accounts we have purporting to be of the birth and youth of Jesus Christ. They both agree that a child was born at Bethlehem, of Judæa, whose name was called Jesus Christ, of parents whose respective names were Joseph and Mary. Thus they agree as to the child's name, his parents' names, and the name of the place of his birth; as to all the rest, they certainly differ much. In Luke the event of the nativity is made to coincide with the taking of a census in the Roman empire, when one named Cyrenius was governor of Syria. Here we meet with a difficulty in the outset. Roman history shows that Publius Sulpicius Quirinus (the name the nearest in form to Cyrenius, which we find in the history of this period) who was consul in A. U. C. 742, or B. C. 12, was appointed governor of Syria, after the banishment of Archelaus,

in A. D. 6. He was sent to make an enrolment of property in Syria, and accordingly made both there and in Judæa a census. It also shows one named Sentius Saturninus to have been governor of Syria at the time Jesus is said to have been born; but A. W. Zumpt, of Berlin, wrought out some able arguments to show the probability of Quirinus having been appointed twice to the same office, his first term of government extending from B. C. 4 to B. C. 1, when he was succeeded by M. Lollius, which is probably correct. This difficulty with respect to Cyrenius has been solved variously by modern scholars, some supposing a corruption in the text of Luke, and others giving some unusual sense to his words.* The account in Matthew does not represent Joseph and Mary to have lived in Nazareth previous to the birth of Christ; but to have gone to reside there after their return from Egypt with the infant Christ, to avoid being persecuted by Archelaus; (so that their happening to reside there would, according to this, be rather a matter of accident), and thereby that a prophecy referring to another† person and thing, which had already long before been fulfilled in another or in others, might be fulfilled. It is noticeable by any reader of Matthew's Gospel, that the writer of it delights to represent all these events which took place in the life of Christ as fulfilments of prophecies; and if one takes a little pains to find out, he will discover that almost all these prophecies had already been fulfilled long before in the characters to which they particularly referred. But it is true that a prophecy once fulfilled may be re-verified ever so often, for history repeats itself with respect to persons and things. But in Luke, the residence of Joseph and Mary is represented to have been in Nazareth, not only after, but before the birth of Christ; for it was there the angel Gabriel is said to have come to Mary and made the announcement to her of the coming Christ; from thence she departed into the hill country of Judæa to visit Elisabeth; and thence they go up to Bethlehem in Judæa to have themselves enrolled, a journey which is not improbable to have taken place, and that for the cause that is given, namely, that Joseph was of the house and lineage of David. It appears probable that no Roman law required the people of Nazareth, or of any other city or neighborhood, to leave their own locality to have their names enrolled in the census list. But still there might have been various causes to bring a man and his wife even from Nazareth to Bethlehem, and the desire of adding their name to a genealogical list traceable to the royal stock of David would not be like-

---

* See Smith's Bible Dictionary, art. Cyrenius. But Cyrenius is doubtless from Greek form for Quirinus.

† Samson or Samuel, Judges XIII. 5: I Sam. I. 11, or both.

ly to be the least; for we know that the Jews as well as other Asiatic, and even European, peoples, take great pride in tracing their pedigree and preserving their genealogy. Indeed so strong is this desire for having a genealogy to exhibit, tracing pedigree back to what is regarded as a respectable stock, that it is very certain there are many genealogical lists that are not entirely correct. In Matthew, although it is said that Jesus was born in Bethlehem, it does not say that Joseph and Mary lived there; nor does it mention what brought them there.

While, in Matthew, wise men, or Magi, are represented as coming from the East to Jerusalem, guided by a star, on the occasion of the birth of Christ, and enquiring, where is he that is born King of the Jews; for we have seen his star in the East, and are come to worship him? — in Luke those that come are shepherds, who were in the same country, Palestine, abiding in the field, keeping watch over their flock by night. The Magi, or wise men, were a caste of priests, especially peculiar to Media, Persia, and Bactria, etc., but not at all to Palestine; the shepherds were peculiar to Palestine, and common to it with other countries; and their occupation is, and has always been, not sacred but secular. Also, while the Magi come to Jerusalem and enquire about the infant king, whose star they had seen in the East, by which they occasion so much anxiety to Herod and the people of Jerusalem, the shepherds go direct to Bethlehem and find Mary and Joseph, and the babe lying in a manger. While the Magi, being astrologers, are guided by a star from the East to Jerusalem, and thence to Bethlehem, till it came and stood over where the young child was—the simple shepherds, (having the birth announced to them by one angel which gives them the sign: Ye shall find the babe wrapped in swaddling clothes and lying in a manger; and then suddenly with him a multitude of the heavenly host, praising God and saying, Glory to God in the highest, and on earth peace, and good will toward men,) go direct to Bethlehem and find even as the angel had told them. While in Matthew the Magi have a very important interview with Herod at Jerusalem—in Luke's account of the nativity nothing whatever is said of Herod, or Jerusalem, or the star, or the wise men. While the Magi find the young child in the house, and on beholding him fall down and worship him, and having opened their treasures present to him gifts, gold, frankincense, and myrrh—nothing is said as to the shepherds either worshipping him or presenting to him gifts; the shepherds find him in different circumstances; they came with haste and found Mary and Joseph, and the babe *lying in a manger.* And while the Magi, being warned of God in a

dream that they should not return to Herod, depart into their own country another way—the shepherds, when they had seen him, "make known abroad the saying that was told them concerning the child, and returned, glorifying and praising God for all the things that they had heard and seen." "And," according to Matthew, "when they," *i. e.*, the Magi "were departed, behold the angel of the Lord appeared to Joseph in a dream, saying: Arise, and take the young child and his mother, and flee into Egypt, and be thou there until I bring thee word, for Herod will seek the young child to destroy him. When he arose he took the young child and his mother by night, and fled into Egypt, and was there until the death of Herod, that it might be fulfilled which was spoken of the Lord by the prophet, saying: Out of Egypt have I called my son;" which last expression is not a prophecy, but only a reference by the prophet Hosea to the exodus of the Israelites from Egypt in the time of Moses.* Nothing is said in Luke of this flight into Egypt. But there comes hereupon, in Matthew, an account of Herod's slaying all the children of and under two years old that were in Bethlehem and its coasts, an act of which no mention is made in Luke, nor in any other sacred or profane writer except those who may have quoted it from the account in Matthew. And supposing such a slaughter to have taken place, would it not be very likely to have been mentioned by some of the historians of that age,—say, the Jewish historian Josephus, who wrote the history of Herod's reign,—if not by some of the Roman historians? Such an act, as it is represented to have been, would certainly seem to have been a fit subject for history. And this act, according to Matthew, fulfils a prophecy of Jeremiah, which he spoke with reference to the land of Israel being left desolate of the Jews who were taken captive to Babylon, and would not appear to have the slightest reference to such a case as this of the reputed killing of the infants of Bethlehem.† According to Matthew, ch. I., even Christ was born in order that a prophecy might be fulfilled; for after the angel announces in a dream to Joseph the birth of a child, Jesus, which was begotten of the Holy Spirit, and enjoins on him to take Mary to his wife, it is said: "Now all this was done that it might be fulfilled which was spoken of the Lord by the prophet, saying: Behold a virgin shall be with child, and shall bring forth a son, and they shall call his name Emmanuel, which, being interpreted, is God with us." Now this prophecy of Isaiah was fulfilled in another

* See Hosea XI. 1. And as to this "round trip" of Joseph with his wife and child, as recorded in Matthew, there would appear no improbability in the thing itself if divested of collaterals.

† See Jeremiah XXXI. 15.

seven hundred years before Christ is said to have been born.* While in Matthew it is said that Joseph knew her not until she had brought forth her first-born son, and called his name Jesus—in Luke this is not said; but according to Luke, ch. I., the angel says to her: "The Holy Spirit shall come upon thee, and the power of the highest shall overshadow thee; therefore also that holy thing which shall be born of thee shall be called the son of God." The Christian world has scarcely yet realized that the Holy Spirit is one and the same with the Father and the Son; and the not understanding this simple fact has caused much useless and vexatious controversy and senseless jargon in the church, yea, and much hatred and bloodshed among professing Christians. They have scarcely yet come to the understanding of this further simple fact that angel means messenger, and that this messenger is as likely to be a living human being as an idea or picture which presents itself to the mind, and communicates to the understanding.† In Luke alone an account is given of the circumcision of Christ, ch. II., 21–55, and mention made of the aged Simeon. But how did the writer of this narrative know the precise words of the thanksgiving and prophetic discourse of Simeon, ch. II., 25–36?—for the writer speaks in the *oratio directa.* Also, in Luke alone mention is made of the aged prophetess Anna, the daughter of Phanuel, "who departed not from the temple, but served God with fastings and prayers night and day." In Luke alone mention is made of Joseph and Mary going to Jerusalem every year at the feast of the passover; of Jesus going up with them when he was twelve years old; of his parents seeking him among the company on their return home, and, not finding him, going back to Jerusalem, and finding him, after a three days' search, sitting among the doctors in the temple, hearing them and asking them questions; of the surprise that was manifested by all at his understanding and answers; and of his mother saying to him: Son, why hast thou thus dealt with us? Behold thy father and I have sought thee sorrowing; and of his answer to this question: Knew ye not that I must be about my father's‡ business: which might have suggested to her that her son acknowledged another father besides Joseph. Now how did the writer know, himself evidently not a present witness, the precise words in which Mary addressed Jesus in the temple, or in which he answered her? for the writer uses the *oratio directa.* We know that the writer of the third gospel, if he received these accounts at all, which he gives us concerning the

* See Isa. VII., and Smith's B. D., art. "Emannuel."

† From this it must not be suspected that we are possibly ignorant of the existence of invisible spiritual intelligences as angels.

‡ Christ is called the Son of God, also the Son of Man. See, also, the speech of Paul on Mars Hill, Acts XVII.

youth of Christ, must have received them by tradition. How then is it that he mentions so many things which are not mentioned in Matthew's account? We have only these two accounts given of the birth and youth of Christ; in Mark, the account of his life, commencing with his baptism; in John after this, for even his baptism is not here mentioned. And how is it that in the account in Matthew so many things are mentioned which are not mentioned in that in Luke? But how in particular is it that these two accounts of the birth and youth of Christ are so totally different that they have scarcely anything in common? If these two accounts were received by way of tradition by two disciples and followers of the same Jesus, say within one hundred and fifty years after his death, how is it that they are so entirely different that if the names Joseph, and Mary, and Bethlehem were omitted they would have nothing in common; and that they appear like two different accounts of the birth and youth of two different persons? These are plain questions, and (both accounts coming to us with the same authority) since we cannot answer them satisfactorily must we not decide both to be of the character of allegorical elaborations? Again, as we know from the teachings of natural science that a body cannot occupy more than one place at the same time, so we know that the birth of Christ could have taken place but in one way. But in these two accounts we find two different sets of circumstances almost entirely dissimilar to each other related as connected with it. If, for illustration, a child is rumored to be born to some distinguished person in Europe, say some queen, and the circumstances of the birth are related in two different ways by two different persons, say in the states of Ohio and Connecticut, both of whom we judge of equal credibility, but neither of whom witnessed what he relates; which of these accounts are we to take as the true one? If we judge impartially and fairly we shall conclude that the birth, if it did occur, may not have taken place in either way in which it has been represented by them, and therefore shall have to await fresh information concerning it, in the absence of which we may decide the reputed birth not to have occurred at all, or the report to have some other meaning than what either of the narrations would appear to convey. But, moreover, the style of the narratives here, especially in respect to the *oratio directa*, used by one whom all decide not to have been a present witness of what he relates, determines the representation to be unliteral, or, in other words, allegorical, which, in the case of the Gospel representations, is of equal importance as if it were literal, if it may not be found to be of greater importance.

The subject continued: John's Ministry and Christ's Baptism.

According to Matthew, ch. III.: "In those days came John the Baptist preaching in the wilderness of Judæa, and saying: Repent ye, for the kingdom of heaven is at hand. For this is he that was spoken of by the prophet Esaias, saying: The voice of one crying in the wilderness: Prepare ye the way of the Lord, make his paths straight. And the same John had his raiment of camel's hair, and a leathern girdle about his loins; and his meat was locusts and wild honey. Then went out to him Jerusalem and all Judæa, and all the region round about Jordan, and were baptized of him in Jordan, confessing their sins.

But when he saw many of the Pharisees and of the Sadducees come to his baptism he said unto them: O generation of vipers, who hath warned you to flee from the wrath to come? Bring forth therefore fruits corresponding to amendment of life. And think not to say within yourselves: We have Abraham to our father; for I say unto you that God is able of these stones to raise up children unto Abraham. And now also the axe is laid unto the root of the trees; therefore every tree which bringeth not forth good fruit is hewn down and cast into the fire. I indeed baptize you with water unto repentance; but he that cometh after me is mightier than I, whose shoes I am not worthy to bear; he shall baptize you with the Holy Spirit, and with fire; whose fan is in his hand, and he will thoroughly purge his floor, and gather his wheat into his garner; and he will burn up the chaff with unquenchable fire.

Then cometh Jesus from Galilee to Jordan unto John to be baptized of him. But John forbade him, saying: I have need to be baptized of thee, and comest thou to me? And Jesus answering said to him: Suffer it to be so now, for thus it becometh us to fulfil all righteousness. Then he suffered him. And Jesus when he was baptized, went up straightway out of the water; and, lo, the heavens were opened unto him, and he saw the spirit of God descending like a dove, and lighting upon him; and, lo, a voice from heaven, saying: This is my beloved son, in whom I am well pleased." *The same according to Mark*, ch. I. verses 1–13: "The beginning of the gospel of Jesus Christ, the son of God. As it is written in the prophets: Behold I send my messenger before thy face, which shall prepare thy way before thee. The voice of one crying in the wilderness: Prepare ye the way of the Lord, make his path straight. John did baptize in the wilderness, and preach the baptism of repentance unto the remission of sins. And there went out to him all the land of Judæa,

and they of Jerusalem, and were all baptized of him in the river Jordan, confessing their sins. And John was clothed with camel's hair, and with a girdle of skin about his loins; and he did eat locusts and wild honey; and preached, saying: There cometh one mightier than I after me, the latchet of whose shoes I am not worthy to unloose. I indeed have baptized you with water, but he shall baptize you with the holy spirit. And it came to pass in these days that Jesus came from Nazareth in Galilee and was baptized of John in Jordan. And straightway coming up out of the water he saw the heavens opened, and the spirit like a dove descending upon him. And there came a voice from heaven, saying: Thou art my beloved son, in whom I am well pleased."

The same according to Luke, ch. III., 1–23: "Now in the fifteenth year of the reign of Tiberius Cæsar, Pontius Pilate being governor of Judæa, and Herod being Tetrarch of Galilee, and his brother Philip Tetrarch of Ituræa, and of the region of Trachonitis, and Lysanias the Tetrarch of Abilene; Annas and Caiaphas being the high priests; the word of God came unto John, the son of Zacharias, in the wilderness. And he came into all the country about Jordan, preaching the baptism of repentance for the remission of sins. As it is written in the book of the words of Esaias the prophet, saying: The voice of one crying in the wilderness: Prepare ye the way of the Lord, make his paths straight. Every valley shall be filled, and every mountain and hill shall be brought low; and the crooked shall be made straight and the rough ways made smooth. And all flesh shall see the salvation of God. Then said he to the multitude that came forth to be baptized of him. O generation of vipers, who hath warned you to flee from the wrath to come? Bring forth therefore fruits corresponding to repentance; and begin not to say within yourselves; We have Abraham to our father; for I say unto you that God is able of these stones to raise up children unto Abraham. And now also the axe is laid unto the root of the trees. Every tree, therefore, which bringeth not forth good fruit is hewn down and cast into the fire. And the people asked him, saying: what shall we do then? He answereth and saith unto them: He that hath two coats let him impart to him that hath none; and he that hath meat let him do likewise. Then came also publicans to be baptized, and said unto him: Teacher, what shall we do? And he said unto them: Exact no more than that which is appointed you. And the soldiers likewise demanded of him, saying: And what shall we do? And he said unto them: Do violence to no man, neither accuse any falsely; and be content with your wages. And as the people were in expectation and all men mused in their hearts of John whether he were the Christ or not, John an-

swering said unto them all: I indeed baptize you with water; but one mightier than I cometh, the latchet of whose shoes I am not worthy to unloose. He shall baptize you with the Holy Spirit and with fire; whose fan is in his hand, and he will thoroughly purge his floor and will gather the wheat into his garner; but the chaff he will burn with unquenchable fire. And many other things in his exhortation preached he unto the people. But Herod the Tetrarch being reproved by him for Herodias his brother Philip's wife, and for all the evils which Herod had done, added yet this above all, that he shut up John in prison.

Now when all the people were baptized it came to pass that Jesus also being baptized and praying, the heaven was opened; and the Holy Spirit descended in a bodily shape like a dove upon him; and a voice came from heaven which said: Thou art my beloved son, in thee I am well pleased."

The same according to John, ch. I. 6–9, 15, 19–34: "There was a man sent from God whose name was John. The same came for a witness to bear witness of the light, that all men through him might believe. He was not that light, but was sent to bear witness of that light. John bare witness of him, and cried, saying: This was he of whom I spake, he that cometh after me is preferred before me, for he was before me.—And this is the record of John when the Jews sent priests and Levites from Jerusalem to ask him, who art thou? And he confessed, and denied not, but confessed, I am not the Christ. And they asked him. What then? Art thou Elias? And he saith: I am not. Art thou that prophet? And he answered: No. Then saith they unto him: Who art thou? that we may give an answer to them that sent us. What sayest thou of thyself? He said, I am the voice of one crying in the wilderness. Make straight the way of the Lord, as said the prophet Esaias. And they which were sent were of the Pharisees. And they asked him, and said unto him: Why baptizest thou then, if thou be not that Christ, nor Elias, neither that prophet? John answered them, saying: I baptize with water; but there standeth one among you whom ye know not. He it is who coming after me is preferred before me, whose shoes' latchet I am not worthy to unloose. These things were done in Bethabara beyond Jordan, where John was baptizing.

The next day John seeth Jesus coming unto him, and saith: Behold the Lamb of God, which taketh away the sin of the world. This is he of whom I said: After me cometh a man which is preferred before me; for he was before me. And I knew him not, but that he should be made manifest to Israel, therefore am I come baptizing with water. And John bare record saying: I saw the Spirit descend-

ing from heaven like a dove, and it abode upon him. And I knew him not, but he that sent me to baptize with water, the same said unto me: Upon whom thou shalt see the Spirit descending and remaining on him, the same is he which baptizeth with the Holy Spirit. And I saw and bare record that this is the son of God."

Remarks on the Foregoing.

Thus it is seen the four Gospels have each an account of John's ministry, and three of them mention Christ's baptism. Only one of the Gospels, as has been mentioned before, has an account of John's birth. All these four accounts represent John to be the forerunner of Christ, he who should introduce him to the people, and as preaching the baptism of repentance unto the remission of sins. He exhorts the people to bring forth fruits (good works) corresponding to a change of heart and of life for the better; and he inculcates, especially in Luke, self-denial, and condescension for the good of others; and benevolence and liberal charity toward all mankind. In this representation, however, he may be justly thought to have given too little attention to the power of oppressing the people possessed by governments, and to the responsibility of government to the people governed.

The publican, for example, Luke III. 13, is commanded to exact no more than that which is appointed him; but the government is not commanded not to levy too much. And the soldiers, verse 14, are commanded to be content with their wages, but no command is given to government as to whether they shall have this large or small, just or unjust. John, therefore, appears to have left too much power in the hands of governments, or, in other words, not to have put sufficient restraint upon them, whereby they should not oppress or deal unjustly with the people. But John unsparingly rebukes the hypocritical, the vicious, and those who substituted the respectability of their ancestors for their being good and doing good themselves; teaching them that "God is able of these stones to raise up children unto Abraham." John represents himself as baptizing them with water unto repentance, but says that one is coming after him who shall baptize them with the Holy Spirit. John preached and ministered baptism as a sign or emblem of regeneration; and regeneration itself was the perfecting and perfection to which they attained who practised John's doctrine as the result of baptism and repentance, and continual good and holy living. Understanding the emblem, they realized in themselves its significance, and gradually attained to the measure of the stature of the fulness of Christ, a perfect man.

All these accounts agree that such a man as John lived, preached, and baptized ; and in this agreement they are confirmed by the history of Josephus, who also spoke of John the Baptist.

In Matthew and Mark, Jesus is represented as having come from Galilee to Jordan to John to be baptized of him. In Luke, his coming from Galilee for that purpose is not mentioned ; but after it is said that Herod had added to the already large catalogue of his crimes this, that he had shut up John in prison. It says : " Now when all the people were baptized it came to pass that Jesus also being baptized, and praying, the heavens were opened ; and the Holy Spirit descended in a bodily shape like a dove upon him, and a voice came from heaven, which said : " Thou art my beloved son, in thee I am well pleased." In Matt. it is said : " And Jesus, when he was baptized, went up straightway out of the water ; and, lo, the heavens were opened unto him ; and, lo, a voice from heaven saying : This is my beloved son, in whom I am well pleased." According to Mark it is : " And straightway coming up out of the water he saw the heavens opened, and the Spirit, like a dove, descending upon him ; and there came a voice from heaven, saying : " Thou art my beloved son, in whom I am well pleased." Now, as to the enunciation of the voice from heaven, given in the *direct oration*, we find that no two of the narratives agree ; all three differ from each other as to it.

When the speech, or the verbal expression of a person is represented in the *oratio directa*, by two, three, or a greater number of writers, it has necessarily to be given, not only in the same words, but these words must occupy exactly the same relative position in the sentence or sentences of each, in order to show that they represent truly the original speech or expression. For example, if two, three, or four reporters take down the same speech in full from an orator as he delivers it, in order for them all fairly to represent the speech, we expect them to have the wording and the relative position of the words in the sentences exactly the same in each and all. But when we find the speech or verbal expression of another given in the *direct oration* by several writers, none of whom, we know, witnessed it himself, and all of whom differ from each other as to it, we cannot possibly tell which of them sets forth the true original ; and, for the lack of more light on the subject, are led, perhaps, to conclude that none of them does ; or rather, as in the cases we are especially dealing with, that they are intended to be allegorical. This allegorical character of the Gospel representations will appear more clear as we proceed.

We have seen that in the three cases of the baptism of Christ by John the Spirit, in the shape of a dove, did not descend upon him

until after he had come up out of the water, that is, after being baptized. We see also in Matt., ch. III., verse 15, that on Jesus presenting himself for baptism John recognized him, and forbade him saying: I have need to be baptized of thee, and comest thou to me? Here then arises a difficult question, which has long exercised Biblical scholars, and has not yet been determined by them, namely, how we are to reconcile that recognition with what John subsequently asserts (John I., 33), saying: "I knew him not, but he that sent me to baptize with water the same said unto me: Upon whom thou shalt see the Spirit descending and remaining upon him, the same is he which baptizeth with the Holy Spirit." Here appears a contradiction; but would the difficulty be removed by supposing that John, on Jesus presenting himself, intuitively recognized him from his appearance corresponding to the idea he had preconceived of the expected Messiah? Luke I., 36, however, makes John to be cousin of Jesus. To the Gospel's idea of Jesus Christ, doubtless, John and his baptism first gave rise.

The Christian system of religion as represented in the Gospels is well adapted to monarchical forms of government. It takes great pains to represent Jesus as a king. It connects with the Gospel system; weaves into it, as it were, a great many of the ideas of royalty; inculcates submission to the last degree to ruling powers; as represented, too, in the humility, of the example of Jesus; and rather favors illiteracy and ignorance in the mass of its professors,—at least, as it is generally understood,—and perhaps, also, in its ministers, than the light of science and education. These facts may partly tend to show us the source from whence proceeded the elaborate system of the Christian religion, as represented in the New Testament; or rather the character of the government, and the manners and customs with respect to that government, which prevailed in those countries where this system originated.

But if the New Testament, as to its main subject, be not wholly literal in signification, it has still a deep figurative or allegoric meaning designed to symbolize the truly good man's or true Christian's life, and in this sense representing reality. It will be seen that in collating and comparing the different accounts, setting forth the same events, we only glance at a few of the principal points of agreement or disagreement between them, leaving to our readers the privilege of exerting their powers in comparing them further, which we hope they will avail themselves of.

The Subject Continued: The Genealogy of Christ.

According to Matthew, ch. I., 1–18: "The book of the generations

of Jesus Christ, the son of David, the son of Abraham: Abraham begat Isaac, and Isaac begat Jacob, and Jacob begat Judas and his brethren, and Judas begat Phares and Zara of Thamar, and Phares begat Esrom, and Esrom begat Aram, and Aram begat Aminadab, and Aminadab begat Naasson, and Naasson begat Salmon, and Salmon begat Booz of Rachab, and Booz begat Obed of Ruth, and Obed begat Jesse, and Jesse begat David the King, and David the King begat Solomon of her that had been the wife of Urias, and Solomon begat Roboam, and Roboam begat Abia, and Abia begat Asa, and Asa begat Josaphat, and Josaphat begat Joram, and Joram begat Ozias, and Ozias begat Joatham, and Joatham begat Achaz, and Achaz begat Ezekias, and Ezekias begat Manasses, and Manasses begat Amon, and Amon begat Josias, and Josias begat Jechonias and his brethren, about the time they were carried away to Babylon; and after they were brought to Babylon Jechonias begat Salathiel, and Salathiel begat Zorobabel, and Zorobabel begat Abiud, and Abiud begat Eliakim, and Eliakim begat Azor, and Azor begat Sadoc, and Sadoc begat Achim, and Achim begat Eliud, and Eliud begat Eleazer, and Eleazer begat Matthan, and Matthan begat Jacob, and Jacob begat Joseph, the husband of Mary, of whom was born Jesus who is called Christ. So all the generations from Abraham to David are fourteen generations; and from the carrying away into Babylon to Christ are fourteen generations."

The same according to Luke III., 23, to end of chapter: "And Jesus himself began to be about thirty years of age, being (as was supposed) the son of Joseph, which was the son of Heli, which was the son of Matthat, which was the son of Levi, which was the son of Melchi, which was the son of Janna, which was the son of Joseph, which was the son of Mattathias, which was the son of Amos, which was the son of Naum, which was the son of Esli, which was the son of Nagge, which was the son of Maath, which was the son of Mattathias, which was the son of Semei, which was the son of Joseph, which was the son of Juda, which was the son of Joanna, which was the son of Rhesa, which was the son of Zorobabel, which was the son of Salathiel, which was the son of Neri, which was the son of Melchi, which was the son of Addi, which was the son of Cosam, which was the son of Elmodam, which was the son of Er, which was the son of Jose, which was the son of Eliezer, which was the son of Jorim, which was the son of Matthat, which was the son of Levi, which was the son of Simeon, which was the son of Juda, which was the son of Joseph, which was the son of Joram, which was the son of Eliakim, which was the son of Melea, which was the son of Menan, which was the son of Mattathias, which was the son of Na-

than, which was the son of David, which was the son of Jesse, which was the son of Obed, which was the son of Booz, which was the son of Salmon, which was the son of Naasson, which was the son of Aminadab, which was the son of Aram, which was the son of Esrom, which was the son of Phares, which was the son of Juda, which was the son of Jacob, which was the son of Isaac, which was the son of Abraham, which was the son of Thara, which was the son of Nachor, which was the son of Saruch, which was the son of Ragau, which was the son of Phalec, which was the son of Heber, which was the son of Sala, which was the son of Cainan, which was the son of Arphaxad, which was the son of Sem, which was the son of Noe, which was the son of Lamech, which was the son of Mathusala, which was the son of Enoch, which was the son of Jared, which was the son of Maleleel, which was the son of Cainan, which was the son of Enos, which was the son of Seth, which was the son of Adam, which was the son of God." The following pedigree will exhibit more concisely the successive generations as given in the two Evangelists.

ACCORDING TO MATTHEW.		ACCORDING TO LUKE.	
Common to Matt. & Luke	Abraham . . . . . Eliud.	Adam . . . . . Mattatha . . Melchi.	
	Isaac . . . . . Eleazer.	Seth . . . . . Menan . . . Levi.	
	Jacob . . . . . Matthan.	Enos . . . . . Melea . . . Matthat.	
	Judah . . . . . Jacob.	Cainan . . . . Eliakim . . . Heli.	
	Phares . . . . . Joseph.	Maleleel . . . Jonam . . . Joseph.	
	Esrom . . . . . Jesus Christ.	Jared . . . . . Joseph . . . . Jesus Christ	
	Aram [Ram]	Enoch . . . . Juda.	
	Arminadab	Mathuselah . . Simeon.	
	Naasson.	Lamech . . . Levi.	
	Salmon.	Noe . . . . . Mathat.	
	Booz.	Sem . . . . . Jorim.	
	Obed.	Arphaxed . . Eliezer.	
	Jesse.	Cainan . . . . Jose.	
	David.	Sala . . . . . Er.	
	Solomon.	Heber . . . . . Elmodam.	
	Roboam.	[Peleg.] Phalec . . . Cosam.	
	Abia.	Ragau . . . Addi.	
	Asa.	Saruch . . . Melchi.	
	Josaphat.	Nachor . . . Neri.	
	Joram.		
	Ozias.	Thara.	Salathiel.
	Joatham.		Zorobabel
	Achaz.	Abraham.	
	Ezekias.	Isaac.	Rhesa.
	Manasses.	Jacob.	Joanna.
	Amon.	Judah.	Juda.
	Josias.	Phares.	Joseph.
	Jechonias.	Esrom	Semei.
		Aram [Ram.]	Mattathias.
	Salathiel.	Aminadab . .	Maath.
	Zorobabel.	Naasson . . .	Nagge.
		Salmon	Esli.
	Abiud.	Booz	Naum.
	Eliakim.	Obed	Amos.
	Azor.	Jesse	Mattathias.
	Sadoc.	David	Joseph.
	Achim.	Nathan	Janna.

Names common to both.

Names com. to Matt. and Luke.

Names com. to both.

Remarks on the Preceding.

These are the only genealogies of Christ found in the Gospels, there being none given in Mark and John.

It is seen that the genealogy in Matthew is reckoned back only as far as Abraham, while that in Luke is reckoned back to Adam. The names in the two tables are the same between Abraham and David, these two included. But while in Matthew, Christ's genealogy is traced to David through Solomon; in Luke it is traced to the same stem through Nathan, another son of David. There is apparently a point of connection in the two genealogies, answering to the time of the Jewish captivity in Babylon in the names of Salathiel and Zorobabel, that are common to both. But that the connection is only apparent is seen by the fact that in Matthew Salathiel is the son of Jechonias, while in Luke he is put down as the son of Neri; and while in Luke Rhesa is the son and successor of Zorobabel, through whom descends Christ, in Matthew Abiud is the son and successor of the same Zorobabel, through whom Christ is descended. Between David and the Babylonish captivity, and between that point and Jesus Christ, the genealogical lists are entirely different. The number of generations between David and Christ, these two included, is, according to Luke, 43; and, according to Matthew, 28. All the connection that appears to be in the two genealogies to that extent is that one named Zorobabel is son to one named Salathiel, who, according to both, lived about the same time; but the Salathiel of each list has a different father, and the Zorobabel of each list a different son, through whom Christ descends, than the other has. But besides these main differences, there are others which claim our attention in these genealogies of Christ. The most remarkable of these is the total discrepancy between them both and that of Zerubabel in the Old Testament (I Chron. III., 19–24). In this last, of seven sons of Zerubabel not one bears the name, or anything like the name of Rhesa or Abiud; and of the next generation, not one of them bears the name, or any thing like the name of Eliakim or Joanna, which are in the corresponding generations in Matthew and Luke. Rhesa is in fact not a name at all, but it is the Chaldee title of the princes of the captivity; and its appearance in the text may be due to the ignorance of some early Christain Jew. The next great difference is in the number of generations between the two genealogies. The division in Matthew into three fourteens gives only 42 (but in reality 41 only are in the text), while in Luke, from Abraham to Christ, inclusive, 56 is reckoned; or, which is more to the point, since the generations between Abraham and David are the same in both gen-

ealogies, while, in Matthew, 28 are reckoned from David to Christ. in Luke are reckoned 43. But in the second tessarodecade, com mencing with Solomon and ending with Jechonias, three generations of kings are omitted,—Ahaziah Joash, Amaziah,—a leap by which the number of generations in this division is fourteen, and in the last tessarodecade,, beginning with Salatheil and ending with Christ, instead of fourteen, there are only thirteen generations mentioned. There is another important discrepancy, a chronological one, which it is necessary to notice here. In both the genealogies there are but three names between Salmon and David,—Booz, Obed, Jesse ;—but, according to the commonly received chronology, from the entrance into Canaan (when Salmon was come to man's estate) to the birth of David was 405 years, or from that to 500 years and upwards. Now for about an equal period, from David to the captivity, Luke's genealogy contains twenty names. This, therefore, determines either the chronology or the genealogy to be more or less wrong; or would they both be? Do not these genealogies, therefore, considered as literal, present to us an apparently obscure page, historically inconsistent in themselves taken singly, and contrary to each other and to the Old Testament history? Which of them then shall we select as of literal interpretation? One is as much so as the other, and, they who are desirous to do so may accept both. The meaning understood, it is seen, they were posited as a basis for the allegorical representation.

Jesus tempted by the Devil.

According to Matthew, ch. IV., 1–12: "Then," that is, immediately upon having been baptized, "was Jesus led up of the Spirit into the wilderness to be tempted of the devil. And when he had fasted forty days and forty nights, he was afterwards an hungered. And when the tempter came to him he said: If thou be the son of God, command that these stones be made bread. But he answered and said: It is written: Man shall not live by bread alone, but by every word that proceedeth out of the mouth of God. Then the devil taketh him up into the holy city, and setteth him on a pinnacle of the temple, and saith unto him: If thou be the son of God, cast thyself down; for it is written: He shall give his angels charge concerning thee, and in their hands they shall bear thee up, lest at any time thou dash thy foot against a stone. Jesus said unto him: It is written again: Thou shall not tempt the Lord thy God. Again, the devil taketh him up into an exceeding high mountain, and showeth him all the kingdoms of the world and the glory of them; and saith to him: All these things will I give thee, if thou wilt fall down and

worship me. Then saith Jesus unto him: Get thee hence, Satan; for it is written: Thou shalt worship the Lord thy God, and him only shalt thou serve. Then the devil leaveth him, and behold, angels came and ministered unto him." *According to Mark*, ch. I., 12–13: "And immediately," that is, on having been baptized, "the Spirit driveth him into the wilderness. And he was there in the wilderness forty days, tempted of Satan; and was with the wild beasts; and the angels ministered unto him." *According to Luke*, ch. IV.. 1–13: "And Jesus, being full of the Holy Spirit, returned from Jordan, and was led by the Spirit into the wilderness, being forty days tempted of the devil. And in those days he did eat nothing; and when they were ended he afterwards hungered. And the devil said unto him: If thou be the son of God, command this stone that it be made bread. And Jesus answered him, saying: It is written, that every man shall not live by bread alone, but by every word of God. And the devil, taking him up into an high mountain, showed him all the kingdoms of the world in a moment of time. And the devil said unto him: All this power will I give thee, and the glory of them; for that is delivered unto me; and to whomsoever I will, I give it. If thou, therefore, wilt worship me, all shall be thine. And Jesus answered and said unto him: Get thee behind me, Satan, for it is written: Thou shalt worship the Lord thy God, and him only shalt thou serve. And he brought him to Jerusalem, and set him on a pinnacle of the temple, and said unto him. If thou be the son of God cast thyself down from hence; for it is written: He shall give his angels charge over thee, to keep thee; and in their hands they shall bear thee up, lest at any time thou dash thy foot against a stone. And Jesus answering, said unto him: It is said: Thou shalt not tempt the Lord thy God. And when the devil had ended all the temptation, he departed from him for a season."

Remarks on the Preceding.

The account of the temptation in the wilderness is recorded in three Gospels. They all agree that on having been baptized and pronounced by the voice from heaven to be the son of God, Jesus was led by the Spirit into the wilderness to be tempted of the devil. Matthew and Luke represent him to have fasted forty days; as in Matthew: "And when he had fasted forty days and forty nights, he was afterwards an hungered;" acc. to Luke: "Being forty days tempted of the devil; and in those days he did eat nothing; and when they were ended he afterwards hungered." In Mark nothing is said as to his fasting forty days; the expression there being: "And he was there in the wilderness forty days tempted of Satan, and was with the wild beasts, and the angels ministered unto him." In John nothing is said as to this particular temp-

tation, or the fast of forty days. Neither Matthew nor Luke—the first said to have been one of the twelve apostles, the second not represented as being one of them,—could have witnessed what they here relate ; for Christ is not represented to have chosen his Apostles until after this temptation. Both these and Mark must therefore have learned by hearsay, if they learned at all, what they relate to us here concerning the forty days of temptation and fasting ; and we must all allow that hearsay is not the kind of evidence required to establish the fact of a human being having fasted forty days and forty nights without eating anything during that time. Would this not be designed to teach us that we should deny the lusts of our flesh and worldly lusts, and practise fasting, as far as we are able to bear it, in order to keep our bodies in subjection, and not allow the flesh to acquire the dominion over our lives? Would it not be designed to teach us that we should practise prayer also with fasting in order to maintain an humble and a contrite spirit, and the better to be able to resist the temptations of our inferior nature, and the assaults of our invisible adversary ? In Mark the particular kinds of temptation to which Christ was subjected by the devil, are not specified, but in Matthew and Luke they are. The first temptation which Satan makes use of is that which one would suppose the carnal appetite would urge upon a hungry man, to whom for sanitary purposes food was forbidden. "If thou be the son of God command that these stones be made bread," (as acc. to Matt.) "If thou be the son of God command this stone that it be made bread, (as acc. to Luke.) Obtain bread and satisfy your appetite, let the result be what it may ; this is the suggestion of the carnal appetite, a strong temptation of the devil. But there is a difference in these two expressions in Matt. and Luke, which are represented to have been uttered by Satan, and given in the *direct oration.* And as each of these is set forth as the original expression of Satan in this particular temptation, we have two expressions, each purporting to be the original. Which then shall we select as the one Satan made use of? Also, the order of the answers of Christ to the second and third temptation is inverted in Matthew and Luke ; that is, the second in order in Matthew is the third in Luke ; and conversely. According to Matthew, second temptation ; "Then the devil taketh him up into the holy city, and setteth him on a pinnacle of the temple, and saith unto him : If thou be the son of God cast thyself down ; for it is written : He shall give his angels charge concerning thee, and in their hands they shall bear thee up, lest at any time thou dash thy foot against a stone. Jesus said unto him : It is written again : Thou shalt not tempt the Lord thy God." According to Luke this is the third temptation : "And he brought him to Jerusalem, and set him on a pinnacle of the

temple, and said unto him: If thou be the son of God cast thyself down from hence; for it is written: He shall give his angels charge over thee, to keep thee; and in their hands they shall bear thee up, lest at any time thou dash thy foot against a stone. And Jesus answering said unto him: It is said: Thou shalt not tempt the Lord thy God." The proposals of Satan in this second temptation, as well as the answers of Christ to them, are different in the two gospels, although given in the *direct oration.* And, therefore, as they both come to us with the same authority for originality, and not knowing which to select as the original questions and answers, we cannot conclude either as of literal import, but require to consider what the meaning may be. Would not the lesson designed to be taught us in this second temptation be that we shall not tempt the Lord our God, by voluntarily or inconsiderately doing irrational things, which almost invariably result in less or greater loss to us? Man is possessed of reason, which it behooves him to make use of in all the circumstances and conditions of life. The better he uses it the more real gain in every good thing he has. The more he abuses it the more loss he sustains of what is good, the more unhappy and vile he becomes, and the more unhappiness and vileness he creates in all those connected with him. In connection with the right use of reason, the exercise of strong unwavering faith in the power and benevolence of the Deity is always exceedingly beneficial, and productive of good results in those who exercise it. Third temptation, according to Matthew: "Again the devil taketh him up into an exceeding high mountain, and showeth him all the Kingdoms of the world, and the glory of them; and saith unto him: All these things will I give thee if thou wilt fall down and worship me. Then saith Jesus unto him: Get thee hence, Satan; for it is written: Thou shalt worship the Lord thy God, and him only shalt thou serve." According to Luke this is the second temptation: "And the devil taking him up into an high mountain showed unto him all the kingdoms of the world in a moment of time. And the devil said unto him: All this power will I give thee, and the glory of them; for that is delivered unto me, and to whomsoever I will, I give it. If thou, therefore, wilt worship me, all shall be thine. And Jesus answered and said unto him: Get thee behind me, Satan; for it is written: Thou shalt worship the Lord thy God, and him only shalt thou serve." In this case also the proposals and answers in the two gospels, relating to the same temptation, are somewhat different. But is not this designed to teach us that we should worship the Lord our God, and him only serve, to the exclusion of all worship of worldly things, and to the non-submission or enslavement to them?

True, we could not live out of the world; but while living in it we should not be of it. The world and the things of it are for our use and our profit, not for our abuse and our worship. Worldly objects should not be sought after to such an extent or in such a way that the seeker has to worship either the world or them in order to obtain them. The time is coming, and now is, when they that worship the Father will worship him in spirit and in truth; for he seeketh such to worship him. No object is to be worshipped to gratify our self-love; nor yet any visible or conceivable worldly object. "What," we hear one say, "there is an object which my heart is set upon, which I have long and earnestly sought to obtain. I plainly see that in order to obtain it I shall have to seek it longer, and that at the expense of my time, of my self-respect, and in violation of my allegiance to God. The acquisition of it would doubtless give me a rise in the eyes of the world, make me a conspicuous object among my fellow-men, so that I, in my turn, should have bestowed upon me a share of the applause and the admiration of the world. Now that I have gone so far in pursuit of it, shall I not go the whole length to obtain it?" Many such alluring objects this world presents; and many, many there are so foolish, so silly as to be tempted and allured by them; having been obtained by one at the expense of being obliged to worship them or worship for them, or at the expense of the seeker's allegiance to God being violated, they are curses rather than blessings, and bring with them trouble and chagrin rather than happiness and joy. It is never too late to reform one's self in such a course, and the sooner the better. All the objects which the world possesses belong naturally to all mankind equally. No one has a natural right to a monopoly of them; and if all men would act rightly and justly towards each other, each one would obtain and possess his proper share without being compelled to worship for them; and if one's lot happened to be small or humble, he would nevertheless be contented with it, and happy in the possession of it, and would not, if it were large, be puffed up with pride on account of it. The world contains no object more noble, more precious, than man; he is lord of this lower creation; and is it reasonable that he should make himself a slave to that which by right he has the dominion over?—that he should worship that, or for that, which is only for his use? The intelligently humble, god-fearing man, though he may be poor as to worldly possessions, and rank low in the esteem of mankind, is nevertheless more truly rich, and infinitely more happy and contented than is the proud pampered worshipper of the world, of its wealth and its fashions.

The Call of the Apostles.

According to Matthew, IV. 18, 22: "And Jesus, walking by the sea of Galilee, saw two brothers, Simon, called Peter, and Andrew, his brother, casting a net into the sea; for they were fishers. And he saith unto them: Follow me, and I will make you fishers of men. And they straightway left their nets, and followed him. And going on from thence he saw other two brothers, James, the son of Zebedee, and John, his brother, in a ship with Zebedee, their father, mending their nets; and he called them; and they immediately left the ship and their father, and followed him." *Acc. to Mark*, ch. I. 16–21: "Now, as he walked by the sea of Galilee, he saw Simon, and Andrew his brother, casting a net into the sea, for they were fishers. And Jesus said unto them: Come ye after me, and I will make you to become fishers of men. And straightway they forsook their nets and followed him. And when he had gone a little farther thence he saw James the son of Zebedee, and John his brother, who also were in the ship mending their nets. And straightway he called them, and they left their father Zebedee in the ship with the hired servants and went after him." *Acc. to Luke*, V. 1–11: "And it came to pass that as the people pressed upon him to hear the word of God, he stood by the lake of Gennesaret, and saw two ships standing by the lake, but the fishermen were gone out of them and were washing their nets. And he entered into one of the ships, which was Simon's, and prayed him that he would thrust out a little from the land. And he sat down and taught the people out of the ship. Now when he had left speaking, he said unto Simon: Launch out into the deep, and let down your nets for a draught. And Simon answering, said unto him: Master, we have toiled all the night and have taken nothing; nevertheless at thy word I will let down the net. And when they had this done, they enclosed a great multitude of fishes; and their net brake. And they beckoned unto their partners which were in the other ship, that they should come and help them. And they came and filled both the ships so that they began to sink. When Simon Peter saw it, he fell down at Jesus' knees, saying: Depart from me, for I am a sinful man, O Lord. For he was astonished, and all that were with him, at the draught of the fishes which they had taken. And so were also James and John the sons of Zebedee, which were partners with Simon. And Jesus said unto Simon: Fear not; from henceforth thou shalt catch men. And when they had brought their ships to land, they forsook all and followed him." *Act. to John*, ch. I., verse 35 to end of chapter: "Again, the next day after, John stood, and two of his disciples;

and looking upon Jesus as he walked he saith: Behold the Lamb of God! And the two disciples heard him speak, and they followed Jesus. Then Jesus turned and saw them following, and saith unto them: What seek ye? They say unto him: Rabbi (which is to say, being interpreted Teacher), where dwellest thou? He saith unto them: Come and see. They came and saw where he dwelt and abode with him that day, for it was about the tenth hour, (4 p. m.) One of the two disciples which heard John speak and followed him was Andrew, Simon Peter's brother. He first findeth his own brother Simon, and saith unto him: We have found the Messias, which is, being interpreted, the Christ. And he brought him to Jesus; and when Jesus beheld him, he said: Thou art Simon, the son of Jona; thou shalt be called Cephas, which is by interpretation, a stone.

The day following, Jesus would go forth into Galilee, and findeth Philip, and saith unto him, Follow me. Now Philip was of Bethsaida, the city of Andrew and Peter. Philip findeth Nathaniel, and saith unto him: we have found him of whom Moses in the law and the prophets did write, Jesus of Nazareth, the son of Joseph. And Nathaniel said unto him: Can there any good thing come out of Nazareth? Philip saith unto him: Come and see. Jesus saw Nathaniel coming to him, and saith of him: Behold an Israelite indeed, in whom is no guile! Nathaniel saith unto him: Whence knowest thou me? Jesus answered and said unto him, Before that Philip called thee, when thou wast under the fig-tree, I saw thee. Nathaniel answered and saith unto him: Rabbi, thou art the son of God; thou art the King of Israel. Jesus answered and said unto him: Because I said unto thee, I saw thee under the fig-tree, believest thou? Thou shall see greater things than these. And he saith unto him: Verily, verily, I say unto you, hereafter ye shall see the heaven open, and the angels of God ascending and descending upon the Son of man."

Remarks on the Preceding.

The accounts in Matthew and Mark of the calling of Peter and Andrew, James and John, do not differ materially. In both of them Jesus is represented as walking by the sea of Galilee, and seeing two brothers, Simon and Andrew, casting a net into the sea, he bids them to follow him, which they immediately do. And going on a little farther he saw two other brothers, James and John, in a ship, mending their nets; whom he also calls to follow him, which they immediately do, leaving their father Zebedee in the ship, and, according to Mark, with the hired servants. The command of Christ to Peter and Andrew, given in the *direct oration,* which, according to

Matthew is "follow me, and I will make you fishers of men;" and according to Mark: "Come ye after me, and I will make you to become fishers of men," is not worded precisely alike in both. The account in Luke, however, differs considerably from those in Matthew and Mark. Here the calling of Peter and James and John (the name of Andrew is not mentioned in this narrative) is associated with the taking of the first miraculous draught of fishes. Christ, who in the two preceding narratives is represented as walking by the sea of Galilee, and sees Simon and Andrew in the act of fishing, and James and John in the ship mending their nets, is here first introduced to us as standing by the same lake and seeing two ships drawn up to shore, the fishermen being apart from them, washing their nets; he enters into one of them, which was Simon's, and asks Simon to row out a little from the land: he sits down, and teaches the people out of the ship. When he had left off addressing the people he tells Peter to row out into the deep and let down his nets for a draught; but Simon answered him: We have toiled all the night and have taken nothing; nevertheless at thy word I will let down the net. Having done this they enclose a great multitude of fishes, and the net brake. (Here it is implied that there were others with Simon Peter in the ship, helping him to fish.) They now, oppressed with a great load of fishes, beckon to their partners that are in the other ship to come and assist them in securing the fish. And they come, and they fill both the ships, so that they begin to sink. Peter, seeing this, falls down at Jesus' knees, saying: Depart from me; for I am a sinful man, O Lord. "For he was astonished, and all that were with him at the draught of the fishes which they had taken; and so were also James and John, the sons of Zebedee, which were partners with Simon. And Jesus said unto Simon: Fear not, from henceforth thou shalt catch men. And when they had brought their ships to land they forsook all and followed him." Here Jesus addresses Peter alone, not in the sense of a call to follow him, but in the way of a prediction indicative of his future manner of life; but, "they, when they had brought their ships to land, forsook all and followed him." The circumstances under which these disciples follow Jesus are represented here as so different from those under which he calls them to follow him in the narratives of Matthew and Mark that these can hardly be called different accounts of the same event. And yet they all so manifestly refer to the same event as evidently to declare its character. But would not this representation, at least in part, be symbolical of the success which would attend those who would give their lives and labors to the winning of souls to truth and salvation? The circumstances under which these disciples,

or at least some of them, begin to follow Jesus are in John represented as different from anything that precedes. Some of the disciples, are here represented as originally followers of John the Baptist, and from following him they began to follow Jesus. Of the four we have mentioned in the preceding narratives only two here are mentioned by name, Andrew and Peter; and there are two others mentioned here in the same connection that are mentioned in the preceding narratives, namely, Philip and Nathaniel. "Again, the next day after, John stood, and two of his disciples, and looking upon Jesus as he walked, saith: Behold the Lamb of God! And the two disciples heard him speak, and they followed Jesus." Then ensues a conversation between these two disciples of John and Jesus on his seeing them following him. They ask him where he abides; he tells them "come and see;" and they came, and abode with him that day, for it was about the tenth hour, or late in the afternoon. One of these two disciples that heard John speak, and followed Jesus, was Andrew, Simon Peter's brother, the same who, according to Matthew and Mark, was called from being a fisherman; the name of the other is not mentioned. He first finds his own brother Simon, and says to him: We have found the Messias, which is, being interpreted, Christ. And he brought him to Jesus; and when Jesus beheld him he said; Thou art Simon, the son of Jona; thou shalt be called Cephas, which is by interpretation, Peter. This accordingly appears to be the first interview which took place between Christ and Peter, although according to the first three narratives, he called Peter from being a fisherman; and the inference is here that Peter was not the other one of John's disciples with Andrew that followed Jesus. Nothing is here said as to Peter and Andrew being fishermen. Andrew is actually said to have been a disciple of John the Baptist, and to have been with John when the latter was exercising his ministry. This was not in Galilee; for it is said in John I. 43, that "The day following, that is, following that on which he met with Andrew and Peter, Jesus would go forth into Galilee." So that he must have met with Andrew and Peter in some other part of the country than Galilee; most probably south of there, in the neighborhood of the Jordan, and beyond, or on the east side of that river where John happened to be then baptizing, is meant. But in the other three narratives the first interview of Christ with Andrew and Peter, and from whence they began to follow him as disciples, is represented to have been at the sea of Galilee, in Galilee, or the lake of Gennesaret, according to Luke, which means the same. The circumstances then under which Peter and Andrew begin to follow Jesus are represented in John as altogether different to what they are in the other three narratives, and in Luke as different from what they are

in the two preceding ones, or in that of John. And in fact the two first narratives, those in Matthew and Mark, have yet enough of dissimilarity to render their purport literal at least doubtful. These two accounts seem, however, as if they might have been copied the one from the other, although the transcription was not effected *verbatim*. That in Luke seems indeed to be peculiar, and this in John appears altogether unique. For see, for example, how in this narrative this one expression is used "Come and see," first by Christ to the two disciples of John that followed him; then by Philip to Nathaniel. In this narrative in John, as we have noticed, an account is given of the call of two disciples not mentioned in any of the other narratives, so far as we have yet examined them. "The day following," that is, following that of the interview with Peter, "Jesus would go forth into Galilee, and findeth Philip and saith unto him: Follow me. Now Philip was of Bethsaida, the city of Andrew and Peter. Philip findeth Nathaniel and saith unto him: We have found him of whom Moses in the law and the prophets did write: Jesus of Nazareth, the son of Joseph. Nathaniel asks: Can there any good thing come out of Nazareth? Philip says unto him: Come and see. Jesus saw Nathaniel coming to him, and said: Behold an Israelite, indeed, in whom is no guile! Nathaniel asks him: Whence knowest thou me? Jesus answered and said to him: Before that Philip called thee, when thou wast under the fig-tree, I saw thee. Nathaniel answered and saith unto him: Rabbi, thou art the son of God; thou art the king of Israel. Jesus answered and said to him: Because I said to thee, I saw thee under the fig-tree, believest thou? Thou shalt see greater things than these. And he saith to him: Verily, verily, I say unto you, hereafter ye shall see heaven open and the angels of God ascending and descending upon the son of man." Notice how often the verb to find (ἐυρίσκειν) is used in this narrative. The dissimilarity of these four narratives with respect to the conversion to follow Jesus of the particular disciples mentioned in them plainly indicates their unliteral character and sets us to seek what their meaning is. But may not these representations be prophetic indications of the manner of increase of the Christian Church in various stages of its history; first by ones or twos picked up or *found*, as it were stray fish taken by an angler; and then by large additions, as indicated by the net-full, which was the case after the conversion of Constantine, and the substitution of Christianity for paganism as the established religion of the Roman empire?

The Call of Matthew.

Acc. to Matthew, IX. 9–14: "And as Jesus passed forth from thence

(that is from the place where he had just cured the paralytic) he saw a man named Matthew sitting at the place of the receipt of custom; and he saith unto him: Follow me. And he arose and followed him. And it came to pass as Jesus sat at meat in the house (that is Matthew's), behold many publicans and sinners came and sat down with him and his disciples. And when the Pharisees saw it they said unto his disciples: Why eateth your teacher with publicans and sinners? But when Jesus heard that he said unto them: They that be whole need not a physician, but they that are sick. But go ye and learn what that meaneth: I will accept mercy and not sacrifice; for I am not come to call the righteous, but sinners to repentance." *Acc. to Mark*, ch. II. 14–18: "And as he passed by he saw Levi, the son of Alphæus, sitting at the place of the receipt of custom, and said unto him: Follow me. And he arose and followed him. And it came to pass that as Jesus sat at meat in his house many publicans and sinners sat also together with Jesus and his disciples; for there were many, and they followed him. And when the Scribes and Pharisees saw him eat with publicans and sinners they said unto his disciples: How is it that he eateth and drinketh with publicans and sinners? When Jesus heard it he saith unto them: They that are whole have no need of a physician, but they that are sick. I came not to call the righteous, but sinners to repentance." *Acc. to Luke*, V. 27–33: "And after these things he went forth and saw a publican named Levi sitting at the place of the receipt of custom; and he said unto him: Follow me. And he left all, rose up and followed him. And Levi made him a great feast in his own house; and there was a great company of publicans and of others that sat down with them. But the Scribes and Pharisees murmured against his disciples, saying: Why do ye eat and drink with publicans and sinners? And Jesus answering said unto them: They that are whole need not a physician, but they that are sick; I came not to call the righteous, but sinners to repentance."

Remarks on the Preceding.

There is a great degree of similarity in the wording of these three narratives; there are also differences in them. The command of Jesus to the publican—Follow me—is the same in all three cases (which agreement may or may not have belonged to the original gospels, or have been the arbitrary work of transcribers or copyists in after times); but the question which the Pharisees are represented as putting to his disciples, as well as the answer of Jesus to them, is somewhat different in each case, which acc. to Matthew, is,—Why,

eateth your teacher with publicans and sinners? But when Jesus heard it he said unto them: They that be whole need not a physician, but they that are sick. But go ye and learn what that means; I will accept mercy and not sacrifice; for I am not come to call the righteous, but sinners to repentance." Acc. to Mark, they say: "How is it that he eateth and drinketh with publicans and sinners?" And Jesus answering said unto them: "They that are whole need not a physician, but they that are sick; I come not to call the righteous, but sinners to repentance." All these questions are more or less different from each other, no two of them being worded precisely alike; and it is just so with the answers. When we speak of these questions and answers differing from each other in each case we speak with reference to the Greek as well as the English form of expression, that is, the form of expression in the original Greek and in the authorized English Bible. These differences in the *direct oration*, it is plain, prevent us from understanding any part of this story more than another as having a literal signification, for the question and answer in each case being put before us as the original, and they all differing from each other respectively, we know that at least there must be some of them unliteral, and we, not knowing which one to select as the true original, have to recognize them all as of unliteral signification, and to seek to discover the intended meaning. But would not this allegorical representation indicate prophetically the free presentation of the gospel religion to all classes and conditions of mankind, which is here represented as brought to them into their house by Christ and his apostles, who symbolized the true and faithful ministers of that religion? And may it not have further indicated that the gospel religion was intended for all mankind, and adapted for them, not knowing any distinction in its application between Pharisees and publicans, Jews and Gentiles? Would it not have been designed to indicate the humility of the gospel religion putting to rebuke all pharisaic pride and exclusiveness, and breaking down the barrier which these had raised between the classes of mankind?

But there is another remark to be made with respect to the subject now under our consideration, that while in Matthew's narrative the publican that was called from the receipt of custom by Jesus is called Matthew; in Mark's he is called Levi, the son of Alphæus; and in Luke he is called Levi. This may appear to indicate the order of the subject of the story; for we have it not explained in any other place that the publican called Matthew in the first Gospel is identical with the one called Levi, the son of Alphæus, in the second, or with the one called Levi, in the third. And, moreover,

in all the lists of the twelve or eleven apostles we have given in the New Testament, the name Levi is not once mentioned, but the name Matthew is counted among them. But the circumstances of the call of this publican are so similar in the three narratives of it as pretty plainly to show that they mean to point to the same event.

The Choosing and Names of the Twelve Apostles.

Acc. to Matthew, ch. X.: "And when he had called unto him his twelve disciples, he gave them power against unclean spirits, to cast them out, and to heal all manner of sickness, and all manner of disease. Now the names of the twelve apostles are these: The first, Simon, who is called Peter, and Andrew, his brother; James, the son of Zebedee, and John, his brother; Philip and Bartholomew; Thomas, and Matthew, the publican; James, the son of Alphæus, and Lebbæus, whose surname was Thaddæus; Simon the Canaanite, and Judas Iscariot, who also betrayed him. These twelve Jesus sent forth, and commanded them, saying, &c.," to the end of chapter. *Acc. to Mark*, ch. III. 13–19: "And he goeth up into a mountain, and calleth unto him whom he would. and they came unto him. And he ordained twelve, that they should be with him, and that he might send them forth to preach; and to have power to heal sickness, and to cast out devils. And Simon he surnamed Peter; and James the son of Zebedee, and John, the brother of James, and he named them Boanerges, which is, sons of thunder; and Andrew and Philip, and Bartholomew, and Matthew, and Thomas, and James, the son of Alphæus, and Thaddæus, and Simon, the Canaanite, and Judas Iscariot, which also betrayed him. *Acc. to Luke*, VI. 12–17: "And it came to pass in those days that he went up into a mountain to pray, and continued all night in prayer to God. And when it was day, he called unto him his disciples: and of them he chose twelve, whom also he named apostles; Simon, whom he also named Peter, and Andrew, his brother, James and John, Philip and Bartholomew, Matthew and Thomas, James, the son of Alphæus, and Simon, called Zelotes, and Judas, the brother of James, and Judas Iscariot, which also was the traitor." *Acc. to Acts*, I. 12–13, which is given as the list of the names of the apostles after the crucifixion and ascension of Christ; "Then returned they unto Jerusalem from the mount called Olivet, which is from Jerusalem a Sabbath-day's journey. And when they were come in, they went up into an upper room, where abode both Peter and Andrew, James and John, Philip and Thomas, Bartholomew and Matthew, James the son of Alphæus, and Simon Zelotes, and Judas, the brother of James."

Remarks on the Preceding.

These lists, doubtless, are meant to be equivalent to each other. For it may be assumed that the Simon Zelotes of Luke and the Acts is identical with Simon the Canaanite of Matthew and Mark; and it may, I think, be as safely assumed that Lebbeus or Thaddeus of Matthew and Mark is the same with Judas the brother of James of Luke and the Acts. I noticed in a painting of the "Lord's Supper" by an Italian artist that St. Thaddeus and St. James the Less bore a striking resemblance to the Savior Jesus; and in Matt. XIII., 55, 56, among the brothers of Jesus are mentioned James and Judas. James the Less is, I believe, recognized as first presiding elder of the church at Jerusalem after the crucifixion, and author of the excellent "Epistle of James." The typical character of the apostles will become more clear as we proceed.

A REVIEW OF THE MIRACLES OF CHRIST IN CHRONOLOGICAL ORDER AS THEY ARE SET FORTH IN THE FOUR GOSPELS, COMPARED AND EXAMINED.

Miracle No. 1. *Christ turns water into wine at Cana of Galilee*, John, ch. II., 1–11: "And the third day there was a marriage in Cana of Galilee, and the mother of Jesus was there. And both Jesus was called and his disciples to the marriage. And when they wanted wine, the mother of Jesus said unto him: They have no wine. Jesus saith unto her: Woman, what have I to do with thee? Mine hour is not yet come. His mother saith unto the servants: Whatsoever he saith unto you do it. And there were set there six waterpots of stone, after the manner of the purifying of the Jews, containing two or three firkins apiece. Jesus saith unto them: Fill the waterpots with water. And they filled them to the brim. And he saith unto them: Draw out now, and bear unto the governor of the feast. And they bare it. When the ruler of the feast had tasted the water that was made wine, and knew not whence it was (but the servants which drew the water knew), the governor of the feast called the bridegroom, and saith unto him: Every man at the beginning doth set forth good wine; and when men have well drunk, then that which is worse; but thou hast kept the good wine until now. This beginning of miracles (literally, signs) did Jesus in Cana of Galilee, and manifested forth his glory; and his disciples believed on him.

Remarks on the Preceding.

This is recorded in only one of the Gospels. John, the ascribed

writer of this Gospel, is represented in Church history as the same with the beloved disciple, which, doubtless, is faithful to the idea intended. It is a fact, however, that no MS. of the New Testament is extant, which dates within the first three centuries. Some of the oldest extant were copied from others which date from within this period; but no MS. as yet, can be placed farther back than the time of Constantine. The original copies of the New Testament, which may have existed before the year 150 or 170 A. D., seem to have soon perished. History affords us no trace of the Apostolic originals; and it is certainly remarkable that in the controversies at the end of the second century, which frequently turned upon disputed readings of Scripture, no appeal was made to the Apostolic originals. Tatian, who lived about 170 A. D., wrote a harmony of the four Gospels. It is probable that the idea of a Christian canon parallel and supplementary to the Jewish canon, was first projected and realized, at or a little before this period.* After this time, the Christian Scriptures multiplied very fast; for in the time of the Diocletian persecution, A. D. 303, copies of them were sufficiently numerous to furnish a special object for persecutors, and a characteristic name to renegades, who saved themselves by surrendering the sacred books. It is probable, however, that this Christian canon was based upon some scanty records which dated from, or very near the time of the first founders of the faith. Thus, it was brought to its present shape not earlier than the year 100 A. D., but probably at a somewhat later period.† This is how the matter really stands historically with respect to the Gospels, and the authority of the New Testament. But the common belief is, that, of the writers of the four Gospels, two, Matthew and John, or the writers of the first and fourth, were eye and ear-witnesses of what they relate, being disciples, and consequently companions of Christ; and that the ascribed writers of the second and third, or Mark and Luke, being not of the immediate disciples of Christ, did not themselves witness what they relate, but relate it upon the testimony of others. We think, therefore, it will be more intelligible to the majority of our readers, if we examine the miracles in the light of the common belief, that is, assuming throughout, for the sake of illustration, the common belief with regard to the writers of the Gospels to be correct.

Now, if, as it is stated, the disciples of Jesus were present with

---

* The New Testament is said to have been composed in the cities of Alexandria, Antioch, Rome, and Ephesus.

† As a convenient book of reference and for further light on this subject see the History of the new Testament given in the unabridged Bible dictionary of Wm. Smith, LL.D., classical examiner of the University of London.

him at the performance of this miracle, and, on account of it, believed on him, does it not seem strange that it is not mentioned in any of the Gospels, except in John? And would it not seem natural to think that the tradition of it would be common among the disciples and followers of Christ, so that thereby it should find its way into some of the other Gospels? For the establishment of the fact of the performance of a miracle, or the production of *a sign*, as this and most of the other commonly designated miracles are literally called in the original, it would certainly appear necessary that there should be two or more credible witnesses of it, who would relate the circumstances of its performance in the same language, or, if not in exactly the same words, yet without any mutual contradiction. The Mosaic law, which was not set aside by Christ in this respect, ordained, that in the mouth of two or three witnesses every word should be established; and should not this be especially so in respect to the miracles of Christ, most of which are represented as interferences with the ordinary course of nature or the controlling and governing of nature, to the production of certain results in nature. This matter of sufficient evidence would be especially required in the case of the miracles we are proceeding to examine; for although the world, with its empires, kingdoms and historians, his own nation, with its Scribes and Pharisees, and learned host, were actively moving at the time he is said to have lived; yet we find no mention made of Christ or his miracles except by those who were his professed followers, or, in other words, Christians.* By no other writer of the Jews or Gentiles, his contemporaries or observers, or successors of a hundred years, is mention made of Christ, except by the Roman historians, Pliny the younger, and Tacitus, in about the last quarter of the first century; the former of whom makes mention rather of the sect of Christians than of Christ; the latter makes mention of both in his relation of the fire of Rome, under Nero. In speaking of the Christians, Tacitus says: "They derived their name and origin from Christ, who, in the reign of Tiberius, had suffered death by the sentence of the procurator, Pontius Pilate." The historian Suetonius also mentions the fact of the Christians being put to death by Nero. which is a confirmation of that fact as related by Tacitus. Tacitus, however, at the time he wrote, in speaking of Christ, could not have spoken from personal experience, but only from reports which had come down to him.† There is a passage in the Jewish history of Josephus, which mentions Christ, acknowledges that he was the Messiah, and hesitates to say whether he should be called a man,

* Concerning the obscurity which overhangs the subject of the birth of Christ and the origin of Christianity,—See for example, Mosheim's Ecclesiastical History, Cent. I. chap. III.

† Would Tacitus have obtained this information from some Governmental documents? It is said the facts of the trial and crucifixion of Jesus were communicated by Pilate to the Roman Senate. Justyn Martyr, in a letter to the emperor Antoninus Pius, appeals to the Acts of Pilate to corroborate his testimony as to Christ, but under this emperor he yet underwent martyrdom. Tertullian tells the Senate to consult their commentaries.

who had done so many wonderful works. But this passage is said by modern critics to have been interpolated into the text of Josephus, between the time of Origen and that of Eusebius, or some time in the third or in the beginning of the fourth century.* The miracles, on the whole, have to stand or fall with the evidence which the Gospels afford us concerning them. And the testimony of one writer, who is not known to have witnessed the performance of the miracle himself, is certainly, we must all allow, hardly sufficient to establish the fact of a miracle, in the common acceptation of the term, having been wrought. This disposes, therefore, of the first miracle, but does not affect the allegoric meaning of the representation. Would not this allegorical representation be designed to teach us that God favors the institution of honorable marriage, and also lends his assistance in providing for the industrious poor, who considerately engage in that respectable bond?

Miracle 2. *Christ first casts the traders out of the temple at Jerusalem*, John, ch. II., 13–18: "And the Jews' Passover was at hand, and Jesus went up to Jerusalem, and found in the temple those that sold oxen and sheep and doves, and the changers of money sitting. And when he had made a scourge of small cords, he drove them all out of the temple, and the sheep and the oxen; and poured out the changers' money, and overthrew the tables; and said unto them that sold doves: Take these things hence; make not my Father's house an house of merchandise. And his disciples remembered that it was written: The zeal of thine house hath eaten me up."

Remarks on the Preceding.

This account of the first casting out of the traders is found only in John. It is not to be confounded with another similar event which is represented to have taken place about three years afterwards, and recorded in the three first Gospels. We do not know that John, the ascribed narrator, witnessed this event, as it is not said whether or not be began to accompany Jesus until after this event took place, or, if he did, that he was one of those disciples that accompanied Jesus to Jerusalem on this occasion. His testimony alone, however, even were he a witness of it, would it be sufficient to establish its authenticity? The unreasonableness of supposing that Jesus, a single man, could drive out the occupants of the temple with a scourge of small cords which he had made for the purpose; pour out the changers' money and overthrow the tables, all

* See Millman's Gibbon's Rome: Vol. II., page 10, Note 36 at bottom, with explanation by Dr. Millman. The silence of Josephus concerning Jesus appears, to say the least, strange; but even though he had had knowledge of Jesus, the ignominy of the punishment to which the latter was subjected, the vilest to which the Roman government subjected men, would be likely to have restralned him from mentioning his countryman in any such connection, more especially if he entertained a good opinion of him.

against their will, is plainly apparent, although faith may still accept it as fact. Would not this representation of the cleansing of the temple by Jesus be designed to indicate the purgation of the Jewish and all other religious systems of their idols, their superstitions, and their unrighteous and unholy practices by the purifying and refining doctrines of the gospel, and the introduction and substitution of Christ's religion in their stead? The driving them out with a scourge of small cords (verse 15) would indicate the gentle means which Christianity employs for the propagation of its doctrines, the protection of its interests, and the government of its fold.

Miracle 3. *He cures the nobleman's son, at Capernaum*, John IV., 46–54: "So Jesus came again into Cana of Galilee, where he had made the water wine. And there was a certain nobleman whose son was sick at Capernaum. When he heard that Jesus was come out of Judæa into Galilee, he went unto him, and besought him that he would come down and heal his son; for he was at the point of death. Then said Jesus unto him; Except ye see signs and wonders ye will not believe. The nobleman saith unto him: Sir, come down ere my child die. Jesus saith unto him: Go thy way, thy son liveth. And the man believed the word that Jesus had spoken unto him, and he went his way. And as he was now going down his servants met and told him, saying: Thy son liveth. Then inquired he of them the hour when he began to amend. And they said unto him: yesterday at the seventh hour the fever left him; so the father knew that it was at the same hour in which Jesus said unto him: Thy son liveth; and himself believed and his whole house."

Remarks on the Preceding.

This is found recorded only in John. It does not say, however, that any special miracle was wrought in this case. It only implies that the effectual change for the better which took place in the child at the seventh hour was caused by the will of Christ that it should be so. Jesus did not come to the child, but the cure was effected, though he was at a distance from the subject of it. The man believed the word that Jesus said to him, went his way, and found his child whole. Would not this representation be designed to show us that wherever we are we should trust firmly in God and thus doing, rest well assured that He watches over us for our safety and preservation. If we are in difficulty, alone anywhere, far from any human being, who, if he were near, might lend a helping hand, if we are thus in the wilderness, on the ocean, or in the wilds of an

American, or any other forest, we should never despair so long as life remains to us; we should pray to God, and be well assured that he hears our prayers, and trust to him unwaveringly, who alone is able to help us, and will make everything result for the best to us. If we are in sickness, sunk very low, and begin to see that there is not much prospect of us recovering our wonted health and strength, or if we have any that is near and dear to us in a like condition, we should never despair, but continually trust unwaveringly in God, who, although we do not see him, yet sees us, and may, even at the last moment, pronounce the word and we shall be healed. Distance will not prevent God from seeing us and hearing our prayers. This we should always rest assured of, that he is ever and everywhere present to see, hear, and help those who trust in him, and whose hearts are right in his sight.

Miracle 4. *He causes the first miraculous draught of fishes.* Luke, ch. V. 1–11: "And it came to pass, that, as the people pressed upon him to hear the word of God, he stood by the lake of Gennesaret, and saw two ships standing by the lake; but the fishermen were gone out of them, and were washing their nets. And he entered into one of them, which was Simon's, and prayed him that he would thrust out a little from the land. And he sat down and taught the people out of the ship. Now when he had left speaking he said unto him: Launch out into the deep, and let down your nets for a draught. And Simon answered and said unto him: Master, we have toiled all night, and have taken nothing; nevertheless at thy word I will let down the net. And when they had this done they enclosed a great multitude of fishes, and their net brake. And they beckoned unto their partners, which were in the other ship, that they should come and help them. And they came and filled both the ships, so that they began to sink. When Simon Peter saw it, he fell down at Jesus' knees, saying: Depart from me, for I am a sinful man, O Lord. For he was astonished, and all that were with him, at the draught of the fishes which they had taken."

Remarks on the Preceding.

This miracle is recorded only in this place. Luke, the writer, cannot be said to have witnessed it, he being not one of the immediate disciples of Christ. All the evidence, therefore, which we shall find brought forward by Luke in proof of the miracles is open to this objection; that he was not an eye or ear-witness himself of what he relates, and could have obtained it only from others by tradition written or oral.

We have had occasion before to pass in review this miracle when treating of the call of the apostles; and, as we there remarked, would not this representation be designed to indicate the success that would attend those who would devote their lives to the winning of souls to the truth, to the conversion of men from sin to holiness, from ignorance to knowledge and wisdom, from darkness to light, and from the power of Satan unto God, from the ways of iniquity and wickedness to the ways of honesty and uprightness of life? While working faithfully and industriously in the cause of God they should not despair if for a time they meet with difficulty and repulse, and have no apparent success. They are still sowing seeds, which will by and by spring up (perhaps in their absence), and bear fruit unto life. They may toil all night with no perceptible good result; but let them toil on, nothing doubting, even when the day has come, and they may be assured that good results will ultimately crown their labors. It may also indicate the rate at which at certain periods of her history people should come in by conversion to the Christian Church.

Miracle 5. *He cures a demoniac at Capernaum*, Mark, I. 23-28: "And there was in their synagogue a man with an unclean spirit; and he cried out, saying: Let us alone; what have we to do with thee, Jesus of Nazareth? Art thou come to destroy us? I know thee, who thou art, the Holy One of God. And Jesus rebuked him, saying: Hold thy peace, and come out of him. And when the unclean spirit had torn him and cried with a loud voice, he came out of him. And they were all amazed, insomuch that they questioned among themselves, saying: What thing is this? What new doctrine is this? For with authority commandeth he even the unclean spirits, and they do obey him." And Luke, IV. 33–38: "And in the synagogue there was a man, which had a spirit of an unclean devil, and cried out with a loud voice, saying: Let us alone; what have we to do with thee, Jesus of Nazareth? Art thou come to destroy us? I know thee who thou art, the Holy One of God. And Jesus rebuked him, saying: Hold thy peace, and come out of him. And when the devil had thrown him in the midst, he came out of him, and hurt him not. And they were all amazed and spake among themselves, saying: What a word is this! for with authority and power he commandeth the unclean spirits, and they come out. And the fame of him went out into every place of the country round about."

Remarks on the Preceding.

This miracle is found recorded in two of the Gospels, that of

Mark and that of Luke. Mark, according to Church history, was a convert of Peter, and wrote his Gospel at Rome in compliance with a request of the converts there, who, not content with having heard Peter preach, pressed Mark, his disciple, to commit to writing a historical account of what he (Peter) had delivered to them.* It also sets down Mark the Evangelist as the same with John, whose surname was Mark, mentioned in Acts XII. 12-25; but Grotius maintains the contrary. Ancient Christian writers agree in making Mark the Evangelist the *interpreter* of the Apostle Peter. Some explain this word to mean that the office of Mark was to translate into the Greek tongue the Aramaic discourses of the Apostle; whilst others adopt the view that Mark wrote a Gospel which conformed more exactly than the others to Peter's preaching, and thus "interpreted" it to the Church at large. Thus, opinions differ, but nothing certain is known as to the writer of the second Gospel. This one thing, however, appears certain, that he was not a present follower of Christ, although some ancient writer has raised the suspicion that it was he who is represented in his Gospel alone, as the young man having the linen cloth wrapped about his body, who followed Jesus on the night of his arrest. This however is merely a moot arising from the fact of the circumstance being related in Mark's Gospel. But concerning this miracle, which we are considering, we must allow it would not be a very easy matter even for eye-witnesses to give clear and satisfactory evidence of the casting of an invisible spirit by one human being out of another, an act which, we can conceive, could only be recognized in its effects, immediate or otherwise, upon the bearing and conduct of the individual acted upon. But in this case there is a remarkable coincidence between the two narratives as to what the man with the unclean spirit said to Jesus, and the words that Jesus addressed to him, which would indicate that both accounts came from the same source to the writers, and that one of the accounts may have been copied from the other. Here the man with the unclean spirit speaks, saying: "Let us alone. What have we to do with thee, Jesus of Nazareth; art thou come to destroy us? I know thee, who thou art, the Holy One of God." It implies, however, that it was the unclean spirit or demon in the man, and not the man himself, that spoke; for it says: "Jesus rebuked him, saying: Hold thy peace, and come out of him; and when the unclean spirit or demon (according to Luke) had torn

* See Kitto's History of the Bible, Art. "Mark."

him and cried with a loud voice, he came out of him." And further on, in Mark I. 34, it says: "And he healed many that were sick of divers diseases and cast out many demons, and suffered not the demons to speak because they knew him." Also, Luke IV. 40–41. "Now, when the sun was setting, all they that had any sick with divers diseases brought them unto him; and he laid his hands on every one of them, and healed them. And demons also came out of many, crying out and saying: Thou art Christ, the Son of God. And he rebuking them, suffered them not to say that they knew him to be Christ." We must all allow these to have been strange phenomena, events such as few now-a-days, learned or unlearned, would believe to have taken place, unless they witnessed them themselves with their eyes and ears. The idea is distinctively of a human being possessing and exercising the power of casting out of another human being an invisible and intelligent being or beings which had its or their abode therein. We have shown in the former part of our work that if all is matter, all is also spirit, and that nothing exists in the universe but spirit. Hence man is a spirit, a great or master spirit, if he will, and in or with that spirit, it is here implied, many other spirits, invisible, though intelligent, bad or good, may have their abode. The Primitive Christians, and indeed, to a great extent, the ancients, conceived themselves as surrounded and assaulted on every side by these invisible and intelligent bad spirits, or demons. But we do not know that they conceived *themselves*, as they ought to have done, to be controlling or superior spirits, whose duty, as well as privilege and interest, it was to keep those inferior spirits in subjection, not to be led or governed by them, but by reason to lead and govern them. We all carry about with us an inferior nature, which necessarily adheres to us as long as we are in this world. The tendency of this nature is to draw us downward, to make us depraved and corrupt, and to deprive us of the good use of our reason by enslaving us to itself. If we yield to it for a single moment, it acquires a dominion over us, and the more we give way and yield to its seductions, the more dominion it acquires over us by bringing us into subjection to our affections and desires; so that in order to retain control and command of his carnal nature, man has to exercise his reason aright, and to crucify the flesh, with its affections and lusts. This probably is what gave rise to the idea of demons, or invisible evil spirits; mankind being always disposed to attribute to other agencies, even invisible ones, the troubles which they experience in themselves, arising from their weakness their foibles, and their inbred proneness to sin; arising, we say, in the main, from each one's own carnal nature, which, though they may not have conceived it,

has its intelligence of a certain kind; for all nature and every part of it has its intelligence. We may, however, remark that if people experience trouble or inconvenience from what they reasonably sup pose unfavorable spirits affecting them externally or otherwise, they should, generally speaking, look upon this experience as an omen most favorable to them, indicating that they have taken a step in the right direction in the way of godliness; and should endeavor not to allow these unfavorable influences to impede them in their progress to perfection. If men have a painful experience in such a way, it should arise to them from their well-doing, and not from their evil-doing. It is a well-known fact that human beings all have an influence on each other, and that this influence, when exercised voluntarily, is more or less effective, according to the relative power of mind of the one that is exercising the influence, and the one that is the subject of his influence. Men in this way are to a certain extent made to participate in each other's thoughts and feelings, even without verbal intercommunication; and hence, how important it is that men should will good to each other in order that all may participate in good thoughts and feelings. The holier and better disposed the man, the better will be his general influence upon his fellow-men, as well as his particular influence upon individuals; and if he unites great strength of mind and of will to holiness and prayerfulness of heart, and a good disposition towards mankind, his influence for good will not only be very effective in general, but also when brought to bear in particular cases. And why could not Jesus Christ (say any such good and holy man as he is represented to have been) have wrought great and good effects upon the sick, and those who considered themselves troubled with evil spirits, merely by bringing to bear upon them his good and holy influence? The humble, intelligent, and holy spirit that is of God, really makes the proud spirit of the devil ashamed of itself, and the demons to skulk away and hide themselves.

It is a well-known fact, too, that there are many in the world in our own day called ventriloquists, and others who do not go by that name, who exercise such power over the minds of their fellow-men, as to make them believe that they hear voices speaking to them from the air, and from other places where it is evident that no human being is present. In fact there is no end to such miracles as are wrought by ventriloquists, mesmerizers, &c., of our own day. By his art the skilful ventriloquist can so modify his own voice as to make it appear to the hearers to proceed from any distance, in any direction, and from another than himself. We take the following illustration from "Dick's Works:"

"M. St. Gill, the ventriloquist, and his intimate friend returning from a place whither his business had led him, sought for shelter from an approaching thunder-storm in a neighboring convent. Finding the whole community in mourning, he inquired the cause, and was told that one of their body had died lately, who was the ornament and delight of the whole society. To pass away the time he walked into the church, attended by some of the religious, who showed him the tomb of their deceased brother, and spoke feelingly of the scanty honors they had bestowed on his memory. Suddenly a voice was heard, apparently proceeding from the roof of the choir, lamenting the situation of the defunct in purgatory, and reproaching the brotherhood with their lukewarmness and want of zeal on this account. The friars, as soon as their astonishment gave them power to speak, consulted together, and agreed to acquaint the rest of the community with this singular event, so interesting to the whole society. M. St. Gill, who wished to carry on the trick a little farther, dissuaded them from taking this step, telling them that they would be treated by their absent brethren as a set of fools and visionaries. He recommended to them, however, the immediately calling the whole community into the church, where the ghost of their departed brother might probably reiterate his complaints. Accordingly all the friars, novices, lay brothers, and even the domestics of the convent were immediately summoned and called together. In a short time the voice from the roof renewed its lamentations and reproaches, and the whole convent fell on their faces, and vowed a solemn reparation. As a first step they chanted a *De profundis* in a full choir, during the intervals of which the ghost occasionally expressed the comfort he received from their pious exercises and ejaculations on his behalf. When all was over, the prior entered into a serious conversation with M. St. Gill, and on the strength of what had just passed sagaciously inveighed against the absurd incredulity of our modern skeptics and pretended philosophers on the article of ghosts or apparitions. M. St. Gill thought it high time to disabuse the good fathers. This purpose, however, he found it extremely difficult to effect until he had prevailed upon them to return with him into the church, and there be eye-witnesses of the manner in which he conducted this ludicrous deception." "Had," says Dr. Dick, "the ventriloquist in this case not explained the cause of the deception, a whole body of men might have sworn with a good conscience, that they had heard the ghost of a departed brother address them again and again in a supernatural voice." But to return to our immediate subject we may remark that the casting out of evil spirits in some such way as that we have recorded under the head of the miracle we are reviewing, appears certainly no more incredible to take place, though

it come not to us attested by eye or ear witnesses of it, than those things commonly regarded as "wonders" which we so often experience. Good men, men of God, should be deemed as competent to perform wonders as other men.

Miracle 6. *Christ heals Peter's mother-in-law of a fever at Capernaum*, Mark I. 29–31: "And forthwith when they were come out of the synagogue, they entered into the house of Simon and Andrew, with James and John. But Simon's wife's mother lay sick of a fever, and anon they tell him of her. And he came and took her by the hand, and lifted her up; and immediately the fever left her, and she ministered unto them." Matt. VIII. 14, 15: "And when Jesus was come into Peter's house, he saw his wife's mother laid, and sick of a fever. And he touched her hand, and the fever left her; and she arose and ministered unto them." Luke IV. 38, 39: "And he arose out of the synagogue, and entered into Simon's house. And Simon's wife's mother was taken with a great fever, and they besought him for her. And he stood over her and rebuked the fever, and it left her; and immediately she arose and ministered unto them."

Remarks on the Preceding.

This is recorded in three Gospels, that of Matt., of Mark, and of Luke. The narratives, although not worded exactly alike, do not contradict each other in terms. They do contradict each other, however, as to the *time* of the performance of the miracle, Mark and Luke placing it immediately after the healing of the demoniac in the synagogue; Matthew, who does not mention the healing of this demoniac, placing it after the healing of the Centurion's servant; while in Luke it is placed before this event. Compare time of Luke IV. 38, with Luke VII. 1–10. In Mark, it seems to imply or say that Simon and Andrew, with James and John, were in the house when the miracle was performed. And would it not appear strange if the writer of the fourth Gospel was present, as it seems to say he was, that he has not mentioned the miraculous event? This contradiction with respect to the time of the performance of the miracle, together with the fact than none of the writers witnessed it himself, for we have seen before that Mark and Luke were not of the immediate followers of Christ, nor was Matthew called from the receipt of custom to follow him till some time after the event we are considering now is said to have taken place—* prevents us from concluding the accounts of this miracle as of literal signification, and incites us to the

* See, with respect to the time of Matthew's call, Mark II. 14; Matt. IX. 9; Luke V. 27, and compare it with the time of the performance of this miracle: Matt. VIII. 14, 15.

discovery of its true meaning. Peter and James and John are all said or implied in the narrative to have been present at the time when the miracle was wrought; but we have writings in the New Testament ascribed to these in which it is not mentioned; and it is left to be mentioned by three writers who could have learned it only through report; and these contradict each other as to the time of it. Still it is not improbable that such an occurrence as the one here represented may have often taken place. As we have stated before, every human being has an influence upon others, and the better and holier the one is, the better and more effectual for good is one's influence. This goodness and holiness of character which inevitably, not exclusively, springs from, and is connected with the knowledge of the true God, and faith in him, enables the individual possessing it to exert a very effectual influence for good upon the object he sets himself to benefit. And may it not have been so that some good man of the early Christians on entering the chamber of a sick female friend sympathizing deeply with her in her affliction, and greatly desiring to benefit her, acted on the nervous system of the invalid by the strength of his will, imparted to her his revivyfying and energising holy influence, and enabled her, sympathizing as she was reciprocally as friend with friend to arise and "minister to them." There seems no improbability in the supposition that such occurrences have taken place, and, as we shall see more clearly as we proceed, the Spirit, though One, infinite in essence and intelligence, has gifts various and different. One human being has one faculty, another has another, and so the powers, the genius, the talents of various individuals are various; and the better and more effectual for good will be the acquired powers of him who lives nearest and is most faithful to God in all truth, holiness, and righteousness; for he will continually advance in wisdom and knowledge nearer to perfection. May not the representation be designed to be a prophetic indication of the excellent effects which would flow from the promulgation of the gospel of truth to a world helpless in ignorance, and sick with sin?

Miracle 7. *Christ heals a leper in Galilee*, Mark I. 40–45: "And there came a leper to him, beseeching him, and kneeling down to him and saying to him: If thou wilt, thou canst make me clean. And Jesus, moved with compassion, put forth his hand and touched him, and saith unto him: I will, be thou clean. And as soon as he had spoken, immediately the leprosy departed from him, and he was cleansed. And he straitly charged him, and forthwith sent him away and saith unto him: See thou say nothing to any man; but go thy way; show thyself to the priest, and offer for thy cleansing those things that Moses commanded for a testimony unto them. But he went

out, and began to publish it much, and to blaze abroad the matter, insomuch that Jesus could no more openly enter into the city, but was without in desert places; and they came to him from every quarter." Matthew VIII. 2–5: "And behold there came a leper and worshipped him, saying: Lord, if thou wilt, thou canst make me clean. And Jesus put forth his hand and touched him, saying: I will; be thou clean; and immediately his leprosy was cleansed. And Jesus saith unto him; See thou tell no man, but go thy way, show thyself to the priest, and offer the gift that Moses commanded for a testimony unto them." Luke V. 12–15: "And it came to pass when he was in a certain city, behold a man full of leprosy, who, seeing Jesus, fell on his face and besought him, saying: Lord if thou wilt, thou canst make me clean. And he put forth his hand and touched him, saying: I will, be thou clean. And immediately the leprosy departed from him. And he charged him to tell no man; but go and show thyself to the priest, and offer for thy cleansing according as Moses commanded as a testimony unto them."

Remarks on the Preceding.

This is recorded in three Gospels: they differ somewhat in respect to the address of the leper to Christ, and also in respect to the second address of Christ to the leper, given in the *direct oration.* The narratives do not agree with respect to the events which precede and follow the miracle, or, in other words, with respect to the time of it; in Matthew it being placed in order much before the healing of Peter's wife's mother, while in Mark and Luke it is placed in order much after that event. These differences, together with the fact that neither of the narrators witnessed himself what he relates, (for the call of Matthew to follow Jesus is recorded in ch. IX, the next succeeding the one containing this account,) prevent us from understanding this representation as of literal interpretation and should stimulate us to discover its allegoric meaning. How frequently do the feats of jugglers, and even dreams and visions, bring before men's eyes spectres in human and other forms apparently in all sorts of circumstances, states and conditions, and going through many metamorphoses and transformations, as it were, in their presence. Would it be any wonder then that such phenomena would sometimes appear to the early Christians which would give them the idea of one performing miracles, but miracles in which there was no more reality than in the feats of a juggler, a vision, or a dream? Such circumstances may have given rise to the representations of some of the reputed miracles of Jesus, especially in the case of some of those we have yet to consider. But on such a supposition the question natu-

rally suggests itself, who or what caused the appearances in the imaginations of those who believed they saw them as real? This question may perhaps be best answered by asking another; who or what causes the dreams and visions which occur to one's mind asleep and awake?—for the mind, even when in a state of conscious activity in the day time, often experiences visions; and there are some minds more susceptible of them than others. And who or what causes the appearances which our imagination conceives as real, and which we believe to be produced by the feats of a juggler operating his art in the room with us? The early Christians were characteristically uneducated, weak-minded, and consequently superstitious men; such, in the main, we have reason to believe the first professors of Christianity were; and such in the main were the Christians for two or three centuries after Christianity first took its rise; and of such a character would some Christian churches have the great mass of their votaries to be now. It is well known how easy such minds are to be operated upon by those who understand them; everything is mystery to them, and they are susceptible of all sorts of impressions; one central or controlling mind, having gained their confidence, moulds the mass, instils into them the opinions he wishes to have them imbibe, and operates so on their imagination that he eventually makes them believe what he pleases. Especially if such an one have the power and tact which we see some men of modern times wielding, causing for the time a strong impression in vast and intelligent assemblies of the appearances they present as realities, he is almost sure to produce a lasting conviction of the reality of such appearances in the minds of the ignorant and superstitious who trust in his honesty. There is no reason why any art or science may not be put to a good use; yea, and many arts that are used for bad purposes may be made, if only those who exercise them will, to subserve the good. Nor is there any valid reason why the true and righteous man, the faithful and true servant of God, may not employ any art or faculty, natural or acquired, he may possess, whether it be otherwise called ventriloquism, jugglery, or any other name, in furthering the cause of truth and righteousness among mankind. But these arts should be used only for that purpose, and their use for the purpose of deceiving others, or for aggrandizing the one who exercises them, should be universally discountenanced, detested and deprecated. The good and prayerful man, who is active in God's cause, and trusts to God for help, will be assisted by him in his worthy efforts; he is a worker together with God in advancing the cause of truth and righteousness in the world, and God is a co-worker with him in the doing of this work. If a large class of mankind who are popularly

looked upon as bad men,—if we may so speak, as the agents of Satan,—perform in the eyes of the intelligent community such wonders, is it anything strange that the servant of God who is interested and active in his Master's cause, especially if he be possessed of some peculiar power, or art, or gift, whether natural or acquired, should perform signs and wonders quite as astonishing in the eyes of the ignorant, the weak-minded, and superstitious, but infinitely more beneficent in their design and effect, as will appear to all men of sense? Some such gifted men there doubtless are now, and have always been in the Christian Church. John the Baptist, we may believe, was one of these, a real historical personage, and one of the greatest of the prophets. But even he was only one of the instruments which Deity made use of in the accomplishment of his purposes. These instruments for the accomplishment of the purposes of Deity among mankind spring up in the course of the ages among mankind themselves. They are sure to do their work ere they leave this earthly scene; and nothing can prevent it. But it is high time for all to disabuse their minds of the idea of a miracle being a work which interferes with or sets aside the order and course of nature, which of itself is a stupendous miracle, and produces an astonishing effect in it, contrary to its normal or ordinary action, in accordance with the will of a human being. A miracle, as the word means, is merely a "wonder" (and what is a wonder to one man, we know, may not be such to another,) a "sign" indicative of something else. The Greek word which is mostly used in the New Testament and translated miracle into our version is *σήμειον*, literally "sign." And may not this vision or allegorical representation of the cleansing of the leper have been designed to indicate the cleansing and purifying effects which the doctrines of the Gospel of truth and holiness should have upon a world diseased with the leprosy of sin?

Miracle 8. *Christ heals the Centurion's servant at Capernaum,* Matt. VIII. 5–13: "And when Jesus was entered into Capernaum, there came unto him a Centurion, beseeching him, and saying: Lord, my servant lieth at home sick of the palsy, grievously tormented. And Jesus saith unto him: I will come and heal him. The Centurion answered and said: Lord, I am not worthy that thou shouldest come under my roof; but speak the word only and my servant shall be healed. For I am a man under authority, having soldiers under me; and I say to this man: Go, and he goeth and to another: Come, and he cometh; and to my servant: Do this, and he doeth it. When Jesus heard it, he marvelled and said to them that followed: Verily I say unto you, I have not found so great faith, no not in Israel. And I say unto you that many shall come from the east and west,

and shall sit down with Abraham, and Isaac, and Jacob, in the kingdom of heaven. But the children of the kingdom shall be cast out into outer darkness; there shall be weeping and gnashing of teeth. And Jesus said unto the Centurion: Go thy way; and as thou hast believed so be it done unto thee. And his servant was healed in the self-same hour." Luke VII, 1–11: "Now when he had ended all his sayings in the audience of the people, he entered into Capernaum. And a certain Centurion's servant who was dear unto him was sick and ready to die. And when he heard of Jesus, he sent unto him the elders of the Jews beseeching him that he would come and heal his servant. And when they came to Jesus, they besought him instantly, saying that he was worthy for whom he should do this: For he loveth our nation, and he hath built us a synagogue. Then Jesus went with them. And when he was now not far from the house, the Centurion sent friends to him, saying unto him: Lord, trouble not thyself; for I am not worthy that thou shouldest enter under my roof; wherefore neither thought I myself worthy to come unto thee; but say in a word and my servant shall be healed. For I also am a man set under authority, having under me soldiers; and I say unto one: Go, and he goeth; and to another: Come, and he cometh; and to my servant: Do this, and he doeth it. When Jesus heard these things, he marvelled at him, and turned him about, and said unto the people that followed him: I say unto you: I have not found so great faith, no, not in Israel. And they that were sent, returning to the house, found the servant whole that had been sick."

Remarks on the Preceding.

This is found recorded in two gospels. First, the two narratives disagree as to the time of the performance of the miracle, in Matthew it being placed in order before the healing of Peter's mother-in-law; in Luke, it being placed in order long after that event. Second, they differ as to the way in which the event is represented as having taken place in the two. According to Matthew, the Centurion comes himself to Jesus, on the latter having entered into Capernaum, and entreats him in behalf of his sick servant; upon which Jesus very promptly volunteers to come and heal him. But hereupon the Centurion with equal promptness remonstrates, saying that he was not worthy such a good and eminent person as Jesus should come under his roof, and asks him to speak the word only, and his servant shall be healed. At the same time he proclaims his own power and authority in such a manner as would lead one to suppose that he exhibited very little modesty. And Jesus on hearing this wondered

and said to those that followed him: "Verily I say unto you, I have not found so great faith, no, not in Israel. And I say unto you that many shall come from the east and from the west, and shall sit down with Abraham, Isaac, and Jacob, in the kingdom of heaven. But the children of the kingdom shall be cast out into outer darkness, where shall be weeping and gnashing of teeth." It appears from this last that the Centurion is not a Jew; and the discourse otherwise represents the rejection of the Jews for unbelief, and the acceptation or incoming of the Gentiles, into the new order of things which was now beginning to be brought about. Acc. to Luke, the Centurion does not himself come to Jesus at all, but sends to him the elders of the Jews, beseeching him to come and heal his sick servant, which, after they had faithfully represented to him the worthiness of the man in whose behalf they had made the request, he consents to do. And on his way thither, when he was now not far from the house, the Centurion sent yet friends to him, saying unto him: "Lord, trouble not thyself for I am not worthy that thou shouldest enter under my roof, wherfore neither thought I myself worthy to come unto thee: but say in a word, and my servant shall be healed. He then goes on as before, acc. to Matt.,—this time however having his friends his mouthpiece,—and proclaims his own power and authority. This discrepancy in the two narratives of the same event is alone sufficient to show the unliteral character of either of them. Add to this, and to the discrepancy as to the time of the performance of the miracle, that neither of the narrators witnessed himself what he relates, (for the call of Matthew did not take place till after this event: See Matt. IX, 9.) and we have a state of things presented which would render it exceedingly unreasonable in us to conclude either of these accounts as representing the performance of a miracle in the common acceptation of that term. But would not the representation have been designed to indicate prophetically the future acceptation of the Gentile world to participation in the Christian system which was now begun to be inaugurated?

Miracle 9.—*He raises the widow's son at Nain*, Luke VII. 11–17: "And it came to pass the day after, that he went into a city called Nain; and many of his disciples went with him, and much people. Now, when he came nigh to the gate of the city, behold there was a dead man carried out, the only son of his mother, and she was a widow; and much people of the city was with her. And when the Lord saw her he had compassion on her, and said unto her: Weep not. And he came and touched the coffin, and they that bare it stood still. And he said: Young man, I say unto thee, arise. And he that was dead sat up and began to speak. And he delivered him

to his mother. And there came fear on all, and they glorified God, saying: That a great prophet is risen up among us; and that God hath visited his people."

Remarks on the Preceding.

This is found recorded in one gospel only, in Luke. The raising of a dead man to life we must all allow would be an act of great power, so great, indeed, that we at once hesitate to believe that such an act is possible for a human being to perform; and when we are informed of a man having accomplished it, we are disposed to believe it only on full and unquestionable evidence. Such evidence we hardly possess of the miracle under consideration; the only account of it we have being from an informant, who could have learnt of it only by tradition. And would it not seem strange if the event took place that none of the disciples who accompanied Jesus at the time he is said to have wrought the miracle, (for it is said in the narrative that many of his disciples were with him, and much people, the writers of the first and fourth gospels, as well as the writers of some of the epistles, being reckoned among the disciples of Christ,) that none of them ever once mention this miracle? The event, however, which gave rise to this story may possibly have been of the nature of a dream or vision; and to weak and superstitious minds, or minds that are susceptible of them, visions sometimes appear in the daylight, leaving an impression upon them as of real occurrences. And may not some visionary representation, that is, in some such way as is here represented, have forcibly impressed the mind of some of the early Christians with the idea of their seeing a dead man raised to life, and containing a prophesy indicating something as to the Christian Church? Or would not the allegory represent the revival which Christianity would effect in the masses of the youth from the blindness and death of superstition and sin to the life of true knowledge and godliness?

Miracle 10. *He stills the tempest on the sea of Galilee*, Matt. VIII. 23–27: "And when he was entered into a ship his disciples followed him. And, behold, there arose a great tempest in the sea, insomuch that the ship was covered with the waves; but he was asleep; and his disciples came to him and awoke him, saying; Lord, save us: we perish. And he saith unto them: Why are ye fearful. O ye of little faith. Then he arose and rebuked the wind, and the sea; and there was a great calm. But the men marvelled, saying; "What manner of man is this, that even the winds and the sea obey him?" Mark IV. 35–41: "And the same day, when the even was come, he saith unto them; Let us pass over unto the other side. And

when they had sent away the multitude, they took him even as he was in the ship. And there were also with him other little ships. And there arose a great storm of wind, and the waves beat into the ship, so that it was now full. And he was in the hinder part of the ship, asleep on a pillow; and they awake him, and say unto him: Master, carest thou not that we perish? And he arose and rebuked the wind, and said unto the sea: Peace, be still. And the wind ceased and there was a great calm. And he said unto them. Why are ye so fearful? How is it that ye have no faith? And they feared exceedingly, and said one to another: "What manner of man is this, that even the wind and the sea obey him?" Luke VIII. 22–26: "And it came to pass on a certain day that he went into a ship with his disciples; and he said unto them: Let us go over to the other side of the lake. And they launched forth. And as they sailed he fell asleep; and there came down a storm of wind on the lake, and they were filled with water, and were in jeopardy. And they came to him, and awoke him, saying: Master, master, we perish. Then he arose and rebuked the wind and the raging of the water; and they ceased, and there was a calm. And he said unto them: Where is your faith? And they being afraid wondered, saying one to another: What manner of a man is this! For he commandeth even the winds and the water, and they obey him."

Remarks on the Preceding.

This is recorded in three of the Gospels. The call of Matthew not taking place till after this event is represented to have occurred neither writer can be said to have witnessed it. Also, the expression of the disciples to Jesus and his admonitory question to them, given in the *oratio directa* differ in the three narratives. In Matt. it is: "Lord save us, we perish. And he saith unto them; Why are ye fearful, O ye of little faith?" In Mark it is: "Master, carest thou not that we perish? And he said unto them: Why are ye so fearful? How is it that ye have no faith?" And in Luke it is: "Master, master, we perish." And he said unto them: "Where is your faith?" Now supposing all of these narratives to represent the same real occurrence (for they all come to us with equal authority for originality), we find that some of them must report wrongly. Which of them then should we select to represent the original expression of the disciples to Christ, and of him to them? This we are unable to determine. If, however, we could affirm the three narrators, or two of them, to have witnessed it themselves, some, notwithstanding the difference of expression in the *direct oration*, might be inclined to believe in the account of a literal

occurrence. But, as before remarked, we have no ground for suspecting, and no authority for saying that either of the narrators witnessed himself what he here relates.

Or, to those who believe in a particular man, Jesus Christ, as represented in the gospels, the following arguments might appear likely. There may have happened to spring up a storm of wind as Christ and his company of disciples were crossing in their little vessel the sea of Galilee. This lake, 'tis true, is but narrow, some five or six miles wide at its widest part; but still there would be no improbability in the Saviour, when the vessel was at some distance out from the shore and the disciples rowing for the other side, reposing himself on a pillow in the hinder part of the vessel, and falling asleep. A storm of wind arising suddenly, the ship would be tossed about on the waves, which alarming the disciples for fear of the vessel being wrecked, they would wake up their Lord and master in the hinder part of the ship. The storm soon abating, and the sea becoming calm on his awaking, the disciples would be under an impression that it had become so in obedience to his will or command. Again, whirlwinds have doubtless in all ages occasionally passed over the surface of the eastern countries; and if one of those squalls overtook a vessel on the lake, it would give it a violent shaking,—perhaps sink it,—and soon pass over, leaving the sea calm. If one of those happened to pass over the lake while the Saviour of the world, and his little devoted band of disciples were out sailing in their little craft, and they to survive it, the suddenness of the squall giving the Saviour scarcely time to wake up from his pillow, and its passing immediately away on his waking up, would leave the disciples under an impression that their beloved master had saved them from a watery grave.

Moreover, and on the other hand, considering Christ in the light of a wonder-worker, that is, in the light of a spiritual medium who had the power of affecting variously the minds of men, it would not be unlikely that while out sailing with his disciples on the sea of Galilee, he would impress them with a sense of his power, affect their minds in such a way as they would believe that a storm was raging, and the waves rolling all around them, although no storm actually raged at the time. Considering Christ in such a light, he would have the power of affecting their minds variously, and this would be one of the effects he would be likely to produce, while, with composed countenance and closed lips, apparently enjoying his repose on his pillow; and a suitable word spoken by him when he had opened his eyes would impress them with a sense of his great power in stilling the winds and the waves. It is to be presumed there are many now-a-

days, if we only knew them who have the faculty of producing similar effects on the minds of their fellow-men. And it is said there are many men who can mesmerise their fellows, notwithstanding the will and effort of the latter to resist their influence; and that there are many who can make others believe they hear different voices speaking to them from different directions at the same time, where it is evident no human being is; and that there are many who can make others believe they see real human beings and other objects, where if they examine they will soon discover that there is nothing, and will have to conclude that what they thought a human being or something else was merely a picture formed in their own mind, an illusion of their own imagination! Yea, and that there are many who can make others believe they hear sounds and noises,—perhaps as of winds, musical instruments, etc.,—coming to their ears from different directions, and producing sometimes the most discordant sounds, sometimes the most delightful and harmonious music, and sometimes as of the noise of a rushing and mighty wind, which will come, and continue for a little while, and pass away. Some of our readers will from their experience doubtless understand these things better than others. What wonder then that some such an effect as their believing they heard and were tossed and rocked by a mighty wind while they were sailing in their little vessel on the lake of Tiberias, should have been produced in the disciples' mind by Jesus, the master of the assembly.

But would not the design of this allegorical representation be to indicate the state of the Christian Church in the future? There was the little vessel, the ark, the Church, tossed about by evil and adverse influences upon the waves of a turbulent world; and there was the pilot in the vessel, representing the Church's acknowledged governor, who would steer the vessel safely through, and keep it from sinking, when tossed at times by the world's adverse winds upon its boisterous waves? As Christ and the Father is one, so each true disciple of Christ is one with him, possessed of, and actuated by the spirit of Christ; and so long as the true spirit of Christ is largely in the Church so long will the vessel, though rocked by storms, ride safely over the most turbulent waves of the world.

Miracle 11. *He cures the demoniac of Gadara*, Matt. VIII, 28–34: "And when he was come to the other side into the country of the Gergesenes there met him two possessed with devils coming out of the tombs, exceeding fierce, so that no man might pass by that way. And behold they cried out saying: What have we to do with thee, Jesus, thou son of God? Art thou come hither to torment us before the time? And there was a good way off from them a herd of many

swine, feeding; so the devils besought him saying: If thou cast us out suffer us to go away into the herd of swine. And he said unto them: Go. And when they were come out they went into the herd of swine; and behold the whole herd of swine ran violently down a steep place into the sea, and perished in the waters. And they that kept them fled, and went their ways into the city, and told everything, and what was befallen to the possessed of the devils. And, behold, the whole city came out to meet Jesus; and when they saw him they besought him that he would depart out of their coasts." Mark V. 1–20: "And they came over unto the other side of the sea, into the country of the Gadarenes. And when he was come out of the ship, immediately there met him out of the tombs a man with an unclean spirit, who had his dwelling among the tombs; and no man could bind him, no, not with chains; because that he had been often bound with fetters and chains, and the chains had been plucked asunder by him, and the fetters broken in pieces; neither could any man tame him. And always night and day he was in the mountains and in the tombs, crying, and cutting himself with stones. But when he saw Jesus afar off he ran and worshipped him and cried with a loud voice and said: What have I to do with thee, Jesus, son of the Most High God? I adjure thee by God that thou torment me not. For he said unto him: Come out of the man, unclean spirit. And he asked him. What is thy name? And he answered, saying: My name is legion; for we are many. And he besought him much that he would not send them away out of the country. Now there was there nigh unto the mountain a great herd of swine feeding. And all the devils besought him, saying: Send us into the swine, that we may enter into them. And forthwith Jesus gave them leave. And the unclean spirits went out and entered into the swine; and the herd ran violently down a steep place into the sea (they were about two thousand) and were choked in the sea. And they that fed the swine fled, and told it in the city, and in the country. And they went out to see what it was that was done. And they come to Jesus, and see him that was possessed with the devil and had the legion, sitting and clothed, and in his right mind; and they were afraid. And they that saw it told them how it befel him that was possessed with the devil, and concerning the swine. And they began to pray him to depart out of their coasts. And when he was come into the ship he that had been possessed with the devil prayed him that he might be with him. Howbeit Jesus suffered him not, but saith unto him: Go home to thy friends, and tell them how great things the Lord hath done for thee, and hath had compassion on thee. And he departed and began to publish in Decapolis how great things Jesus had done

for him: and all men did marvel." Luke VIII. 26–40: "And they arrived at the country of the Gadarenes, which is over against Galilee. And when he went forth to land there met him out of the city a certain man which had devils a long time, and wore no clothes, neither abode in any house, but in the tombs. When he saw Jesus, he cried out, and fell down before him, and with a loud voice said: What have I to do with thee, Jesus, son of God most High? I beseech thee torment me not. (For he had commanded the unclean spirit to come out of the man. For oftentimes it had caught him; and he was kept bound with chains and in fetters; and he brake the bands and was driven of the devil into the wilderness.) And Jesus asked him, saying; What is thy name? And he said legion; because many devils were entered into him. And they besought him that he would not command them to go out into the deep. And there was there a herd of many swine feeding on the mountain; and they besought him that he would suffer them to enter into them. And he suffered them. Then went the devils out of the man and entered into the swine: and the herd ran violently down a steep place into the lake and were choked. When they that fed them saw what was done they fled, and went and told it in the city and in the country. Then they went out to see what was done; and came to Jesus, and found the man out of whom the devils were departed sitting at the feet of Jesus, clothed, and in his right mind; and they were afraid. They also which saw it told them by what means he that was possessed of the devils was healed."

Remarks on the Preceding.

This is found recorded in three Gosples, but with this important difference, that in the narrative in Matthew two demoniacs are mentioned, while in the corresponding one in Mark and Luke respectively there is only one. There is this difference also, that in Matthew the miracle is said to have been performed in the country of the Gergesenes, in Mark and Luke in that of the Gadarenes. It may, however, be safely presumed that the same place is meant, or that the two appellations have reference to the same locality, from the circumstance that the miracle is represented in all as taking place when Christ and his disciples landed on the other side, after being tempest-tossed on the sea of Galilee. And they likewise all agree as well in other respects as that the outcast devils entered into the herd of swine, which ran violently down a steep place into the sea and were drowned. Also, these three accounts are put down in the best reference Bibles as referring to the same miracle. The improbability of two demoniacs, which, according to the representation,

we may conceive as exceedingly fierce, wild and wicked men, dangerous to each other and to the whole community, being found at large, associated together, as according to Matthew, is at once apparent. The improbability, too, of such a man as is represented in Mark and Luke abiding naked in the mountains and in the tombs, crying and cutting himself with stones, and repeatedly breaking the chains and fetters with which he had been bound, and to all appearance without the means of supporting life, is almost equally apparent. Also, considering the accounts in Mark and Luke, which agree in mentioning only one demoniac, we find that in other respects they differ from each other. According to Mark the demoniac addresses Jesus thus: "What have I to do with thee, Jesus, son of the Most High God? I adjure thee by God that thou torment me not." And Jesus asked him: "What is thy name?" And he answered him saying; "My name is legion, for we are many." Acc. to Luke the demoniac says: "What have I to do with thee, Jesus, Son of God Most High? I beseech thee torment me not." And Jesus asked him saying: "What is thy name?" And he said "legion," because many devils were entered into him. And acc. to Matthew the two demoniacs address Jesus in still a different way: "What have we to do with thee, thou Son of God. Art thou come hither to torment us before the time?" Strictly speaking these last mentioned differences in the narration of the same event in the *oratio directa*, are sufficient to show these accounts, as not literally significant; for coming to us with the same authority as original accounts of the same event we would not know which of them to accept as the true original, or whether either of them was the original, and therefore should have to recognize them all as unliteral. But would not this allegorical representation be designed to symbolise the future operation of the true Christian Church? The circumstance of the spirits being represented as made by Jesus to go out of the men or man would indicate the salutary effect of the holy influence of the true Christians of all ages in purifying the hearts and reforming the lives of the unclean and unholy. And the further circumstance of the unclean spirits being permitted to enter into swine would indicate that the evil and depraved, when left to themselves, if they persisted in their evil course would go on from bad to worse till they should be helplessly lost. They are left to themselves and they *choose* to add sin to sin, one diabolical malign, and impure affection to another, till, having reached the climax of wickedness, they rush headlong into the depths of ungodliness and despair, and perish in the gulf of perdition. Is it not lamentable that man, the only rational creature, the highest of the animal creation, being left free to act, should choose the evil course and

debase himself to the level of the lowest of the scale of the animal creation, when, if he had chosen and pursued the good course, he might have become equal to, or higher than the angels of heaven.

Miracle 12. *He cures a man of the Palsy at Capernaum*, Matt. IX. 1–8: "And he entered into a ship, and passed over, and came into his own city. And, behold, they brought unto him a man sick of the palsy, lying on a bed; and Jesus seeing their faith said unto the sick of the palsy: Son, be of good cheer, thy sins be forgiven thee. And, behold, certain of the Scribes said within themselves; this man blasphemeth. And Jesus, knowing their thoughts, said: Wherefore think ye evil in your hearts? For whether is it easier to say: Thy sins be forgiven thee, or to say: Arise and walk? But that ye may know that the Son of Man hath power on earth to forgive sins: (then saith he to the sick of the palsy:) Arise take up thy bed and go unto thine house. And he arose and departed to his house. But when the multitudes saw it they marvelled, and glorified God, which had given such power unto men." Mark II. 3–13: "And they came unto him, bringing one sick of the palsy, which was borne of four. And when they could not come nigh unto him for the press, they uncovered the roof where he was; and when they had broken it up, they let down the bed wherin the sick of the palsy lay. When Jesus saw their faith he said unto the sick of the palsy; Son, thy sins be forgiven thee. But there were certain of the Scribes sitting there and reasoning in their hearts: Why doth this man thus speak blasphemies? Who can forgive sins but God only? And immediately when Jesus perceived in his spirit that they so reasoned among themselves he said unto them: Why reason ye these things in your hearts? Whether is it easier to say to the sick of the palsy: Thy sins be forgiven thee, or to say; Arise, and take up thy bed and walk? But that ye may know that the Son of Man hath power on earth to forgive sins (he saith to the sick of the palsy): I say unto thee arise and take up thy bed, and go thy way into thine house. And immediately he arose, took up the bed, and went forth before them all, insomuch that they were all amazed and glorified God, saying: We never saw it on this fashion." Luke V. 18–27: "And, behold, men brought in a bed a man which was taken with the palsy; and they sought to bring him in and lay him before him. And when they could not find by what way they might bring him in because of the multitude, they went upon the housetop, and let him down through the tiling with his couch in the midst before Jesus. And when he saw their faith he said unto him: Man, thy sins are forgiven thee. And the Scribes and the Pharisees began to reason, saying: Who is this that speaketh blasphemies? Who can forgive sins but God

alone? But when Jesus perceived their thoughts, he, answering, said unto them: What reason ye in your hearts? Whether it is easier to say: Thy sins be forgiven thee, or to say: Rise up and walk? But that ye may know that the Son of Man hath power upon the earth to forgive sins (he said unto the sick of the palsy): I say unto thee, arise, and take up thy couch, and go unto thine house. And immediately he rose up before them and took up that whereon he lay, and departed to his own house, glorifying God; and they were all amazed and glorified God; and were filled with fear, saying: We have seen strange things to-day."

Remarks on the Preceding.

This miracle, it is seen, is recorded in three Gospels. It is known that all three accounts are meant to be of the same event from the circumstance that the call of Matthew, to follow Jesus, is mentioned in each Gospel immediately succeeding the account of this miracle. There is, however, a difference in the way in which the representation is given in the three. In Matthew it is stated simply that one sick of the palsy, was brought to Jesus lying on a bed, &c. In Mark and Luke it is said that when, by reason of the crowd, they could not approach Jesus with the palsied man, they went up on the house-top, (their houses being flat roofed in Palestine), uncovered the roof, and let him down in the midst, before Jesus. He, seeing their faith, and sympathizing with the paralytic, ordered him to arise, take up his bed, and carry it to his house, which the recruited man is said to have done forthwith. The expression of Jesus to the sick man in pronouncing his sins forgiven, set forth in the *direct oration*, is different in each. According to Matthew, it is: "Son, be of good cheer, thy sins be forgiven thee." According to Mark, "Son thy sins be forgiven thee." And according to Luke: "Man, thy sins are forgiven thee." The three accounts differ also as to all the other expressions of Jesus, as those to the Pharisees and the paralytic, which each reader may notice in the text for himself. All these differences mentioned together with the fact of the want of evidence, plainly demonstrate these accounts as not of literal signification and sets us to find out its allegoric meaning. But may there not have been some event which gave rise to the representation, an event, likely, of the nature of a dream or vision, indicating something with respect to the Christian Church, and which he who conceived it, believed to be real? It is a fact, however, that all human beings possess the power of influencing each other for good or for evil, and their influence on each other corresponds to a great extent

with their moral character. The good and holy man will have a good and holy and energising influence upon his neighbor, and *vice versa*. Also, the will and desire of the good and holy man are seconded by God, for they are in accordance with His will, and God is a co-worker with him. Is it altogether improbable then that the life-imparting and energising influence of some good and intelligent men among the early christians may have produced astonishingly good effects upon certain invalids, such as this paralytic is represented to have been? Some people believe themselves invalids when they really are not; but the condition in which they imagine themselves often springs from indisposition to activity, sheer laziness, if we may so speak, on their own part, a morbid state of their bodily and mental faculties. And might not this reputed paralytic have been one of this large class of persons that now exist, and, doubtless have always existed in the world; who, having heard of the great and beneficent wonder-worker before, believing what he said to him now, and taking courage at his command, springs to his feet, and carries his bed to his house. This latter hypothesis may, in a measure, correspond with the ideas of those who believe in a particular man, Jesus Christ, who is represented in the Gospels. But in consideration of the trouble which the bearers of this paralytic are represented to have taken in bringing him to Jesus, would not this allegorical representation have been designed to teach us that we should leave nothing undone in the way of prayer and supplication to God, and in every other way which may bring them benefit, in behalf of our afflicted friends and neighbors? Aside from what takes place in the course and operations of nature, and by the art and operations of man, the domain of miracles is the region of the mind. All will confess that this universe around us, the course and operations of nature, is to us a stupendous miracle, yea an infinity of stupendous miracles, which we cannot and dare not begin to explain.

Miracle 13. *He restores to life Jairus' daughter at Capernaum.* Matt. IX. 18–19, 23–26. "While he spake these things unto them, behold there came a certain ruler and worshipped him, saying: My daughter is even now dead; but come and lay thy hand upon her, and she shall live. And Jesus arose and followed him, and so did his disciples.—And when Jesus came into the ruler's house, and saw the minstrels and the people making a noise, he said unto them: Give place, for the maid is not dead, but sleepeth. And they laughed him to scorn. But when the people were put forth he went in and took her by the hand, and the maid arose. And the fame of it went abroad into all that land." Mark V. 22–24, 35–43: "And behold

there cometh one of the rulers of the synagogue, Jairus by name; and when he saw him he fell at his feet, and besought him greatly, saying: My little daughter lieth at the point of death; come and lay thy hands on her, that she may be healed, and she shall live. And Jesus went with him, and much people followed him and thronged him.—While he yet spake, there came from the ruler of the Synagogue's house, certain, which said: Thy daughter is dead, why troublest thou the master any further? As soon as Jesus heard the word that was spoken, he saith unto the ruler of the synagogue: Be not afraid, only believe. And he suffered no man to follow him, save Peter and James, and John, the brother of James. And he cometh to the house of the ruler of the synagogue, and seeth the tumult, and them that wept and wailed greatly. And when he was come in he saith unto them: Why make ye this ado and weep? The damsel is not dead, but sleepeth. And they laughed him to scorn. But when he had put them all out, he taketh the father and the mother of the damsel, and them that were with him, and entereth in where the damsel was lying. And he took the damsel by the hand and said unto her: Talitha cumi, which is being interpreted: Damsel, I say unto thee, arise. And straightway the damsel arose and walked; for she was of the age of twelve years. And they were astonished with a great astonishment. And he charged them straitly that no man should know it, and commanded that something should be given her to eat." Luke VIII. 41–43, 49–56: "And behold, there came a man, named Jairus, and he was a ruler of the synagogue; and he fell down at Jesus' feet, and besought him that he would come into his house; for he had only one daughter, about twelve years of age, and she lay a-dying. But as he went the people thronged him.—While he yet spake there cometh one from the ruler of the synagogue's house, saying to him: Thy daughter is dead; trouble not the master. But when Jesus heard it, he answered him, saying: Fear not, believe only and she shall be made whole. And when he came into the house he suffered no man to go in, save Peter and James and John, and the father and mother of the maiden. And all wept and wailed her; but he said: weep not; she is not dead, but sleepeth. And they laughed him to scorn, knowing that she was dead. And he put them all out, and took her by the hand, and called, saying: Arise. And her spirit came again, and she arose straightway, and he commanded to give her meat. And her parents were astonished; but he charged them that they should tell no man what was done."

Remarks on the Preceding.

This miracle is recorded in three Gospels. Neither of the narrators

witnessed it himself; for it is said, both in Luke and Mark, that he suffered no man to be present but Peter and James and John, and the father and mother of the damsel. And would it not seem strange that, although we have writings in the New Testament ascribed to two of these disciples who are said to have been present at the performance of the miracle, and one of whom it is said wrote the fourth Gospel, not one of them mentions it? The raising of a human being from the dead to life we must all allow would be an act of supernatural power; and, if we should hear of such a thing having been done by any man, we should require very complete and satisfactory evidence of it before we should credit it. Now, how do we account for the writer of the fourth Gospel, not to speak of the others who are said to have been present at the miracle, not mentioning it, and that three writers, who did not witness it at all, mention it in very similar language? Also those expressions which are here in the *oratic directa* are different in the different narratives. As, for example, according to Matthew, the ruler addresses Jesus thus: "My daughter is even now dead, but come and lay thy hand upon her and she shall live." According to Mark, it is: "My little daughter lieth at the point of death; come and lay thy hands on her that she may be healed, and she shall live." Now, which of these expresssions Jarius made use of, or whether he made use of either of them, we cannot tell; such a predicament does the *oratio directa* put us in. Again, according to Matthew, when Jesus comes into the house, he says: "Give place, for the maid is not dead, but sleepeth." According to Mark: "Why made ye this ado and weep? the damsel is not dead, but sleepeth." And according to Luke: "Weep not; she is not dead, but sleepeth." Now, which of these expressions Jesus made use of on his entrance to that house of mourning, we cannot tell; and for all these reasons we cannot conclude these accounts as of literal signification. But would not this allegorical representation have been designed to teach us that when any of our friends or neighbors are in a dying state we should, together with using every other means for their amelioration, never give up hopes of them, but should persist in prayer to God for their recovery, until they are evidently beyond hope? Or, that if any of our friends or neighbors are in a state of sinning, we should use, together with our precept and example to them, our prayers to God in their behalf? And this we should persist in doing, and not be put off with the idea of our troubling the master. We should eternally besiege and compass the throne of grace as the importunate widow did the unjust judge, until we eventually have become the instruments of effecting in them a change of heart and a reformation of life.

Miracle 14. Matt. IX. 20–23. *He cures a woman of a bloody issue, at Capernaum.*—"And behold a woman which was diseased with an issue of blood twelve years, came behind him and touched the hem of his garment; for she said within herself: if I may but touch his garment I shall be whole. But Jesus turned him about, and when he saw her he said: Daughter, be of good comfort; thy faith hath made thee whole. And the woman was made whole from that hour." Mark V. 25–34: "And a certain woman which had an issue of blood twelve years, and had suffered many things of many physicians, and had spent all that she had, and was nothing bettered, but rather grew worse, when she heard of Jesus, came in the press behind, and touched the hem of his garment. For she said: If I may touch but his clothes I shall be whole. And straightway the fountain of her blood was dried up; and she felt in her body that she was healed of that plague. And Jesus, immediately knowing in himself that virtue had gone out of him, turned about in the press and said: Who touched my clothes? And his disciples said unto him: Thou seest the multitude thronging thee, and sayest thou: Who touched me? And he looked round about to see her that had done this thing. But the woman, fearing and trembling, knowing what was done in her, came and fell down before him and told him all the truth. And he saith unto her: Daughter, thy faith hath made thee whole; go in peace and be whole of thy plague." Luke VIII. 43–48: "And a woman having an issue of blood twelve years, which had spent all her living upon physicians, neither could be healed of any, came behind all and touched the border of his garment; and immediately her issue of blood staunched. And Jesus said: Who touched me? When all denied, Peter and they that were with him said: Master, the multitude throng thee and press thee, and sayest thou: Who touched me? And Jesus said: Somebody hath touched me; for I perceive that virtue is gone out of me. And when the woman saw that she was not hid, she came trembling, and falling down before him, she declared unto him before all the people for what cause she had touched him, and how she was healed immediately. And he said unto her: Daughter, be of good comfort: thy faith hath made thee whole; go in peace."

Remarks on the Preceding.

This is found recorded in three Gospels. Of the three narrators, only Matthew, the ascribed writer of the first Gospel, could be supposed to have witnessed it, as his call to follow Christ is recorded before in the same chapter. But these three accounts come to us with the same authority for originality. Now there is some difference

between the accounts in the expressions of Jesus to the woman on being cured of her plague. According to Matt. it is: "Daughter, be of good comfort; thy faith hath made thee whole:" According to Mark: "Daughter, thy faith hath made thee whole; go in peace and be whole of the plague:" According to Luke: "Daughter, be of good comfort; thy faith hath made thee whole; go in peace." There are also some other slight differences in the expressions Christ is represented to have made use of on this occasion, both in the Greek and English, in the latter of which the general readers can notice them for themselves. In each of the three narratives Jesus attributes the result to the woman's own faith, and it is here intimated, as in other similar cases, that as one believes a thing to be, so it is to him. Would not this allegorical representation have been designed to show us that we should continually exercise firm faith in the power and goodness of God, as well as perform the requisite acts?

Miracle 15. *He restores to sight two blind men, at Capernaum*, Matt. IX. 27–31: "And when Jesus departed thence two blind men followed him, crying and saying: Son of David, have mercy on us. And when he was come into the house, the blind men came to him; and Jesus saith to them: Believe ye that I am able to do this? They said unto him: Yea, Lord. Then touched he their eyes, saying: According to your faith be it unto you. And their eyes were opened; and Jesus straitly charged them saying: See that no man know it. But they, when they were departed, spread abroad his fame in all that country."

Remarks on the Preceding.

This is found recorded only in Matthew. That the writer witnessed what he here relates is not said. The improbability, however, of two blind men being abroad in the country associated together, and of their being able, though blind, to follow Jesus on the way is at once apparent. Would not this allegorical representation have been designed to foreshow the taking away of the blindness of superstition and ignorance from both Jew and Gentile, as an effect of the promulgation of the true Christian doctrine?

Miracle 16. *Christ heals one possessed of a dumb spirit at Capernaum*, Matt. IX. 32–34: "And as they went out, behold, they brought to him a dumb man possessed with a devil. And when the devil was cast out the dumb spake, and the multitudes marvelled, saying: It was never so seen in Israel. But the Pharisees said: He casteth out devils through the prince of the devils." Luke XI. 14: "And he was casting out a devil, and it was dumb. And it came to pass when the devil was gone out the dumb spake, and the people

wondered. But some of them said: He casteth out devils through Beelzebub, the chief of the devils."

Remarks on the Preceding.

This is found recorded in two gospels, and in both places it seems only to be mentioned casually. But according to Matthew it was the man that was dumb; and according to Luke it was the devil by which the man was possessed that was dumb; but as both of them agree that the man spoke when the devil was cast out, the inference is that his dumbness resulted from his being possessed of the devil. Would not this allegorical representation have been designed to indicate the good effects of true Christian doctrine upon a world distempered and lethargic with moral and physical disease, resulting from superstition, ignorance, and sin? But the man being brought to a realizing sense of his true condition by the light of the knowledge which the gospel affords him, speaks out, and the people wondered at the good effects produced in him, which they also begin to realize in themselves through his influence. The Pharisees, however, allege that he casts out the devils through the prince of the devils; but in the sequel it is satisfactorily proved that this is effected by the spirit of God. (See Luke XI. 17–27.)

Miracle 17. He *cures the infirm man of Bethesda*, at Jerusalem, John V. 1–9: "After this there was a feast of the Jews; and Jesus went up to Jerusalem. Now there is at Jerusalem by the sheep-market a pool which is called in the Hebrew tongue Bethesda, having five porches. In these lay a great multitude of impotent folk, of blind, halt, withered, waiting for the moving of the water. For an angel went down at a certain season into the pool, and troubled the water; whosoever then first after the troubling of the water stepped in was made whole of whatsoever disease he had. And a certain man was there, which had an infirmity thirty and eight years. When Jesus saw him lie, and knew that he had been now a long time in that case, he saith unto him: Wilt thou be made whole? The impotent man answered him: Sir, I have no man, when the water is troubled, to put me into the pool: but while I am coming, another steppeth before me. Jesus saith unto him: Rise, take up thy bed, and walk. And immediately the man was made whole, and took up his bed, and walked; and on the same day was the Sabbath."

Remarks on the Preceding.

This is recorded only in John. Whether or not the writer witnessed it is not intimated. It must be confessed, however, that the

story of that miracle appears at least as probable as that of the healing virtues of Bethesda's waters in the same narrative; for here it is said that, "an angel went down at a certain season into the pool, and troubled the water: and whosoever then first after the troubling of the water stepped in was made whole of whatever disease he had." One part of the narrative literally considered, appears just as probable and as improbable as the other. And if it be true that the diseased Jews used to assemble there periodically, each invalid anxiously expecting and preparing himself to be the first to step in after the moving of the waters by the angel, it only shows into what a pitiable condition of superstition and ignorance the Jews of that day were sunk. But for the sake of illustrating to those who believe in a particular man, Jesus Christ, we will, for a moment, suppose the representation real. Is it then probable that the invalid, having heard of Christ before, had considerable faith in the goodness of his character, and in His power to work miracles, and hoped that he might, when He would come the way, do some good for him? And then the benign aspect of Jesus when present answering in a degree his expectations and his hopes: the words which Jesus speaks to him, accompanied by his vivifying and energizing influence upon his dilapidated system, strengthens his faith and increases his energy, so that he believes himself a new man, and springs to his feet at the command of the world's Saviour, takes up his bed, as the one cured of the palsy, and travels away with it to his house. And may he not have been one of that large class who are not really in as bad a condition as they imagine themselves to be, and would have others believe they are? This man, as the restored paralytic, is made to undergo quite a protracted examination of the Jews as to the agent and manner of his healing on the Sabbath-day.

But would not this allegorical representation have been designed mainly to teach the superstitious Jews and all like them, who are over punctilious about the keeping of the Sabbath-day, the inconsistency and wickedness of pursuing such a course to the neglect of the weightier matters of the law, charity and beneficence to the sick, the afflicted, and the poor; grace, mercy, and truth to all mankind? In fact, are not all these representations of healing on the Sabbath-day pointedly designed to show that great and universal truth that the Sabbath was made for man and not man for the Sabbath? When men live aright they will spend the Sabbath and every other day well.

Miracle 18. *He cures a man with a withered hand*, in Judæa, Matt.

XII. 10–13: "And, behold, there was a man which had his hand withered. And they asked him, saying: Is it lawful to heal on the Sabbath-days? that they might accuse him. And he said unto them: What man shall there be among you, that shall have one sheep, and if it fall into a pit on the Sabbath-day, will he not lay hold on it, and lift it out? How much then is a man better than a sheep? Wherefore it is lawful to do well on the Sabbath-days. Then saith he to the man: Stretch forth thine hand. And he stretched it forth; and it was restored whole, like as the other."

Remarks on the Preceding.

This is recorded only in Matthew. That the writer witnessed the transaction is not alleged or intimated, but this allegorical representation is evidently designed to teach the same kind of lesson as the one we have examined immediately before, namely, that the Sabbath was made for man, and not man for the Sabbath.

Miracle 19. *He cures a blind and dumb demoniac*, at Capernaum. Matt. XII. 22, 23: There was brought unto him one possessed with a devil, blind, and dumb: and he healed him, insomuch that the blind and dumb both spake and saw. And all the people were amazed, and said: Is not this the Son of David? But when the Pharisees heard it, they said: This fellow doth not cast out devils, but by Beelzebub the prince of the devils, &c.

Remarks on the Preceding.

This is recorded only in this place. That the writer witnessed it is not stated. Were it not that this demoniac is represented as blind as well as dumb, we would conclude this representation to be only a repetition of that which we examined under the head of No. 16, the account of which is found in Matt. IX. 32, 33, and Luke XI. 14. In both cases the account of the miracle is followed by the same argument of the Jews as to Christ's casting out devils through Beelzebub the prince of the devils, and his refutation of that argument. Would not this allegorical representation have been designed to indicate the good effects which would be produced by the knowledge and enlightenment which the gospel would afford to a benighted world, by which, realizing their condition, men would *speak out* their experience as well as *see* their state? And should it not teach God's children that they should be eternally active, as far as lies in their power, in doing deeds of charity and beneficence to suffering humanity?

Miracle 20. *He feeds five thousand* at Decapolis. Matt. XIV. 15-21: "And when it was evening, his disciples came to him, saying: This is a desert place, and the time is now past; send the multitude away, that they may go into the villages, and buy themselves victuals. But Jesus said unto them: They need not depart; give ye them to eat. And they say unto him: We have here but five loaves, and two fishes. He said: Bring them hither to me. And he commanded the multitude to sit down on the grass, and took the five loaves, and the two fishes, and looking up to heaven, he blessed, and brake, and gave the loaves to his disciples, and the disciples to the multitude. And they did all eat, and were filled: and they that had eaten were about five thousand men, besides women and children." Acc. to Mark. VI. 34–45: "And Jesus, when he came out, saw much people, and was moved with compassion toward them, because they were as sheep not having a shepherd, and he began to teach them many things. And when the day was now far spent, his disciples came unto him, and said: This is a desert place, and now the time is far passed: send them away that they may go into the country round about, and into the villages, and buy themselves bread: for they have nothing to eat. He answered and said unto them, Give ye them to eat. And they say unto him: Shall we go and buy two hundred pennyworth of bread, and give them to eat? He saith unto them: How many loaves have ye? go and see. And when they knew, they say: Five, and two fishes. And he commanded them to make all sit down by companies on the green grass. And they sat down in ranks, by hundreds and by fifties. And when he had taken the five loaves and the two fishes, he looked up to heaven, and blessed, and brake the loaves, and gave them to his disciples to set before them: and the two fishes divided he among them all. And they did all eat, and were filled. And they took up twelve baskets full of the fragments, and of the fishes. And they that had eaten of the loaves were about five thousand men." Luke IX. 12–18: "And when the day began to wear away, then came the twelve, and said unto him: Send the multitude away, that they may go into the towns and country round about, and lodge, and get victuals: for we are here in a desert place. But he said unto them: Give ye them to eat. And they said: We have no more but five loaves and two fishes; except we should go and buy meat for all this people. For they were about five thousand men. And he said to his disciples, Make them sit down by fifties in a company. And they did so, and made them all sit down. Then he took the five loaves and the two fishes, and looking up to heaven, he blessed them, and brake, and gave the disciples to set before the multitude. And they did eat, and were all filled: and there was

taken up of the fragments that remained to them twelve baskets." John VI. 5–15: "When Jesus then lifted up his eyes, and saw a great multitude come unto him, he saith unto Philip: Whence shall we buy bread, that these may eat? And this he said to prove him: for he himself knew what he would do. Philip answered him: Two hundred pennyworth of bread is not sufficient for them, that every one of them may take a little. One of his disciples, Andrew, Simon Peter's brother, saith unto him: There is a lad here, which hath five barley loaves, and two small fishes: but what are they among so many? And Jesus said: Make the men sit down. Now there was much grass in the place. So the men sat down, in number about five thousand. And Jesus took the loaves: and when he had given thanks, he distributed to the disciples, and the disciples to them that were set down; and likewise of the fishes as much as they would. When they were filled he said unto his disciples: Gather up the fragments that remain, that nothing be lost. Therefore they gathered them together, and filled twelve baskets with the fragments of the five barley loaves, which remained over and above to them that had eaten. Then those men, when they had seen the miracle that Jesus did, said: This is of a truth that prophet that should come into the world."

Remarks on the Preceding.

We find this miracle recorded in the four gospels. Not being of the number of the immediate disciples of Christ, we can hardly suspect that Mark and Luke could have witnessed it; and as to Matthew and John, the two who, according to the generally received opinion, might probably have witnessed it, these two we find differ most in their narratives of it; their differences are indeed such as to indicate designed variations in narrative of the same event by two narrators. For example, these two vary as to the place of the miracle. Matthew locating it in a desert place, John upon a mountain; as to the number that were fed, Matthew having it five thousand men, besides women and children, John five thousand men. They vary as to the conference between Christ and his disciples relative to the multitude and the procuring of food for them, Matthew representing a general conversation between Christ and the disciples concerning it, in which the disciples first address their inquiries to Christ; John representing a particular conversation between Christ on the one side, and Philip and Andrew on the other, in which Christ first addresses his inquiry to Philip: "Whence shall we buy bread, that these may eat?" They

vary in narrative as to the sort of the food, Mathew having it five loaves and two fishes, John five barley loaves and two small fishes. But what is most ominous of all, and most indicative of the nature of the representation of the miracle, is that just twelve baskets full of fragments should be left of the miraculously multiplied food after the meal! Why not more or less than the number twelve? Truly the producer must not only have known the exact number he was to provide for, but have measured the extent of their appetites, and the capacity of the twelve baskets that were to be filled after the repast. If of literal interpretation this event must have been altogether miraculous!

But would not this allegorical representation have been designed to prefigure the order and manner in which the Christian Church should be established and carried on? There was the Church's acknowledged Head, the central figure of the group, supplying spiritual life by His doctrine and example, as found in the gospel, to mankind through the instrumentality of His apostles, the true ministers, or rather missionaries, of the Christian Church. The number that were present and partook of the repast, five thousand, five being in prophetic language a limited, imperfect number, would indicate that the number of mankind which would enter the Christian Church, and accept of Christianity in any age would be limited. While twelve, being the number of the Church, a perfect number (cf the twelve tribes of Israel, the twelve apostles, the twelve stars on the woman's head, and the twelve gates of the new Jerusalem, Revelation) indicates that the gospel was designed and is amply sufficient for all mankind; and six being the half of twelve, and five being less than six, the five thousand mentioned as partaking of the feast would perhaps indicate that at no age of the world would quite half the number of mankind be really Christians. There is still, it is seen, ample work for true Christian men who desire to be active in the cause of God, in the conversion to true and genuine Christianity of what remains to make up the large number of five-twelfths or over of the human race, a number which has never yet been enrolled as acknowledged Christians, and which it will yet take time and earnest activity for Christianity to attain. But when shall come the happy age when five-twelfths of the human race shall be *real and true* Christians? Such a state of things is certainly much to be desired and sought after.

Miracle 21. Jesus *walks on the Sea of Galilee*, Matthew XIV. 22–34: "And straightway Jesus constrained his disciples to get into a ship, and to go before him to the other side, while he sent the multitudes away. And when he had sent the multitudes away, he went

up into a mountain apart to pray; and when the evening was come, he was there alone. But the ship was now in the midst of the sea, tossed with waves: for the wind was contrary. And in the fourth watch of the night Jesus went unto them, walking on the sea. And when the disciples saw him walking on the sea, they were troubled, saying: It is a spirit; and they cried out for fear. But straightway Jesus spake unto them, saying: Be of good cheer; it is I; be not afraid. And Peter answered and said: Lord, if it be thou, bid me come unto thee on the water. And he said: Come. And when Peter was come down out of the ship, he walked on the water, to go to Jesus. But when he saw the wind boisterous, he was afraid; and beginning to sink, he cried, saying; Lord, save me. And immediately Jesus stretched forth his hand, and caught him, and said unto him. O thou of little faith, wherefore didst thou doubt? And when they were come into the ship, the wind ceased. Then they that were in the ship came and worshipped him, saying: Of a truth thou art the Son of God." Mark VI. 45–53: "And straightway he constrained his disciples to get into a ship, and to go to the other side unto Bethsaida, while he sent away the people. And when he had sent them away, he departed unto a mountain to pray. And when even was come, the ship was in the midst of the sea, and he alone on the land. And he saw them toiling in rowing; for the wind was contrary unto them: and about the fourth watch of the night he cometh unto them, walking upon the sea, and would have passed by them. But when they saw him walking on the sea, they supposed it to be a spirit, and cried out, for they all saw him, and were troubled. And immediately he talked with them, and saith unto them: Be of good cheer: it is I; be not afraid. And he went up unto them into the ship; and the wind ceased: and they were sore amazed in themselves beyond measure, and wondered. For they considered not the miracle of the loaves: for their heart was hardened." John VI. 15–22: "When Jesus therefore perceived that they would come by force to make him a king, he departed again into a mountain himself alone. And when even was come, his disciples went down unto the sea, and entered into a ship, and went over the sea toward Capernaum. And it was now dark, and Jesus was not come to them. And the sea arose by reason of a great wind that blew. So when they had rowed about five and twenty or thirty furlongs, they see Jesus walking on the sea, and drawing nigh unto the ship: and they were afraid. But he saith unto them: It is I; be not afraid. Then they willingly received him into the ship: and immediately the ship was at the land whither they went."

Remarks on the Preceding.

This miracle is recorded in three Gospels. It is found in all three immediately following the account of the feeding of the five thousand; and it may seem strange that it is not recorded in that position in Luke also, where an account is given, as well as in the others, of the "miracle of the loaves." If any of the writers could be supposed to have witnessed it they would be Matthew and John; and on the supposition that they did witness it their narratives would be expected to coincide in the main. These narratives, however, are such as to show that they are designed to be varying representations of the same event. In Matthew and Mark, Christ is represented as, after the feeding of the five thousand, constraining his disciples to get into the ship and set sail for the other side, while himself sends the multitude away and departs into a mountain to pray; and as, when the evening has come, which doubtless means night, being still there alone on the land, while the ship is now on the midst of the sea, tossed with the waves for the wind was contrary. In John he is represented as going apart into the mountain to conceal himself from the multitude (the five thousand he had just fed) because he perceived they were about to take him by force and make him a king; and the disciples are represented as, when the evening was come, going (of their own accord) down to the sea, entering a ship, and setting sail for the other side. Now, it is plain, there is considerable difference between his deliberately constraining the disciples to get into the ship, sending the multitudes away, and going into the mountain, apart, for the purpose of prayer; and, as is represented in John, leaving the disciples and the multitudes to take care of themselves, while he makes his escape as best he can into the mountain, to avoid being made a king of by the multitude that he had banqueted on the products of land and sea. The story, as in John, might indeed be termed plausible.

Again, all three narrators represent Jesus as coming to the disciples walking on the water, while the vessel is tossed with the waves: in Matt. and Mark as coming at the fourth watch; in John when they had rowed about five and twenty or thirty furlongs (three, or three and a half miles). According to all the accounts the disciples are afraid when they see him approaching the vessel, walking on the water; and in each case he is represented as removing their fears by an expression of encouragement and comfort, at the same time identifying himself to them. In Matt. this is: "Be of good cheer; it is I be not afraid." In Mark it is the same; but in John, "It is I,

be not afraid," is the expression. The first part of the expression in Matt. and Mark "Be of good cheer" (Greek θαρσεῖτε) is not in John. This difference in the *direct oration* it is seen might or might not prevent us from accepting either of these narratives as literally significant. But the narratives do not agree as to what took place immediately before his entering the ship. According to Matt. Peter answered him and said: "Lord if it be thou, bid me come unto thee on the water," And Jesus said: "Come." And when Peter was come down out of the ship he walked on the water to go to Jesus. But when he saw the wind boisterous he was afraid, and beginning to sink, he cried, saying: "Lord save me." And immediately Jesus stretched forth his hand, and caught him, and said unto him: "O thou of little faith, wherefore didst thou doubt?" And when they were come into the ship the wind ceased. Then they that were in the ship came and worshipped him saying: "Of a truth thou art the Son of God." But in the other two narratives, that of Mark and of John, there is no mention made of Peter. In Mark, immediately after the announcement "It is I," he went up unto them into the ship, and the wind ceased. And according to John, immediately after this announcement "It is I," "then they willingly received him into the ship; and immediately the ship was at the land whither they went." Thus it is seen the accounts in Matt. and John are so different as to be almost wholly unlike two different accounts of the same event from two different witnesses of it. Would not the moral of the allegory be to teach us that we should firmly trust in God in seasons of adversity, and not neglect to work (at the oars) in the performance of all our duties; that while we cultivate the true faith we should also exercise good works?

Miracle 22. *He heals the daughter of the woman of Canaan*, near Tyre, Matt. XV. 22–28: "Then Jesus went thence and departed into the coasts of Tyre and Sidon. And, behold, a woman of Canaan came out of the same coasts, and cried unto him, saying: Have mercy on me, O Lord, son of David: my daughter is greviously vexed with a devil. But he answered her not a word. And his disciples came and besought him saying. Send her away; for she crieth after us. But he answered, and said: I am not sent but unto the lost sheep of the house of Israel. Then she came and worshipped him, saying: Lord help me. But he answered and said: It is not meet to take the children's bread and to cast it to dogs. And she said; Truth, Lord; yet the dogs eat of the crumbs which fall from their master's table. Then Jesus answered, and said unto

her: O woman, great is thy faith; be it unto thee even as thou wilt. And her daughter was made whole from that very hour." Mark VII. 24–31: "And from thence he arose, and went into the borders of Tyre and Sidon, and entered into a house, and would have no man know it; but he could not be hid. For a certain woman, whose young daughter had an unclean spirit, heard of him and came and fell at his feet: the woman was a Greek, a Syrophœnician by nation; and she besought him that he would cast forth the devil out of her daughter. But Jesus said unto her: Let the children first be filled: for it is not meet to take the children's bread and to cast it unto the dogs. And she answered and said unto him: Yea, Lord; yet the dogs under the table eat of the children's crumbs. And he said unto her,: For this saying go thy way; the devil is gone out of thy daughter. And when she was come to her house she found the devil gone out, and her daughter laid upon the bed."

Remarks on the Preceding.

This miracle is recorded in two Gospels. Matthew being reckoned of the number of the immediate disciples of Christ would be the one, if either, that might be supposed to have witnessed it, but that he did is not intimated. We have dealt hitherto with some cases of the alleged casting out of devils or unclean spirits, and have seen how difficult it must be to conceive such a case as the casting of an invisible spirit out of a human being. We have seen that such an act could only be recognized in its effects upon the character and conduct of the subject of the influence. We have seen that all good and holy men and women have a good, a purifying and an energising influence upon those who surround them, and whom they set themselves to benefit; and the better and holier one is, the better and more effectual one's influence. We have seen, too, that the natural and acquired powers and gifts of human beings are various, one possessing one gift, genius, or talent, another another, and so these varying as the people are numerous. Is it then an improbable case that the holy and energising influence of some good, intelligent, and prominent man among the early Christians, the disciples of John the Baptist, when brought steadily and powerfully to bear upon a female possessed of a bad temper, of impure habits and unholy affections, should have availed to work in her the beginning of a complete change of heart and life, which gradually and in due time was perfected? For God always seconds the prayers and assists the efforts of the good and holy man who is active in his cause, and he will bring to perfection that change of moral character which by his assistance is happily begun. The

gospel represents the Saviour's doctrine as being that salvation was of, and primarily and especially for the Jews. And would not this Syrophœnician woman with her depraved offspring, crying to be cleansed and healed, represent in the allegory all the outside or Gentile world earnestly expecting admission into the Christian Church, which they obtained upon their renunciation of their old idolatry and evil habits, and their profession of the true Christian faith, and practising a new manner of life?

Miracle 23. He *heals a deaf and dumb man*, at Decapolis, Mark, VII. 31–37: "And again departing from the coasts of Tyre and Sidon he came into the sea of Galilee through the midst of the coast of Decapolis. And they bring unto him one that was dumb, and had an impediment in his speech, and they beseech him to put his hand upon him, and he took him aside from the multitude and put his fingers into his ears, and he spit and touched his tongue. And looking up to heaven he sighed, and saith unto him: Ephphatha, that is, be opened: and straightway his ears were opened and the string of his tongue was loosed, and he spake plain. And he charged them that they should tell no man; but the more he charged them so much the more a great deal they published it; and were beyond measure astonished, saying: He hath done all things well, he maketh the deaf to hear and the dumb to speak."

Remarks on the Preceding.

This is recorded only in Mark. The circumstance or event which gave rise to this representation may perhaps have been a dream or a vision, which last may occur to the mind that is susceptible of it, as well in its waking moments in the broad daylight, as in the time of sleep in the hours of night. Occurring to the mind in the state of sleep, the mental representation is called a dream or vision; occurring in the waking moments when the mind is active, it is called a vision. These mental representations are sometimes so well defined, complete and impressive, setting forth so faithfully all the parts and characters of a state or condition, change of state or condition, progression or action with respect to persons or things, or both, and also accompanied sometimes with appropriate words in the language of the person to whom they are revealed, that the mind, especially the superstitious and ignorant mind, is apt to think them real. And may not this dream or vision, or allegory (for the reader may have it which of these he thinks best,) have indicated something in particular with respect to the Christian Church? Would

not the opening of the ears have indicated that mankind was about to have communicated to them the doctrines of the Gospel which they would understand; and the loosening of the tongue after the opening of the ears that on having heard and learned these doctrines men would be disposed to speak boldly and freely in defence of them, and in communicating them to others?

Miracle 24. He *feeds four thousand*, at Decapolis, Matt. XV. 32–39: "Then Jesus called his disciples unto him, and said: I have compassion on the multitude, because they continue with me now three days, and have nothing to eat: and I will not send them away fasting, lest they faint by the way. And his disciples say unto him: Whence should we have so much bread in the wilderness, as to fill so great a multitude? And Jesus saith unto them: How many loaves have ye? And they said: Seven, and a few little fishes. And he commanded the multitude to sit down on the ground. And he took the seven loaves and the fishes, and gave thanks, and brake them, and gave to his disciples, and the disciples to the multitude. And they did all eat, and were filled: and they took up of the broken meat that was left seven baskets full. And they that did eat were four thousand men, besides women and children. And he sent away the multitude, and took ship and came into the coasts of Magdala." Mark VIII. 1–9: "In those days the multitude being very great, and having nothing to eat, Jesus called his disciples unto him, and saith unto them: I have compassion on the multitude, because they have been with me now three days, and have nothing to eat: and if I send them away fasting to their own houses, they will faint by the way: for divers of them came from far. And his disciples answered him: From whence can a man satisfy these men with bread here in the wilderness? And he asked them: How many loaves have ye? And they said, seven. And he commanded the people to sit down on the ground: and he took the seven loaves, and gave thanks, and brake, and gave to his disciples to set before them; and they did set them before the people. And they had a few small fishes: and he blessed, and commanded to set them also before them. So they did eat, and were filled: and they took up of the broken meat that was left seven baskets. And they that had eaten were about four thousand: and he sent them sway."

Remarks on the Preceding.

This miraculous account is recorded in two Gospels, Matthew and Mark. If either of the writers witnessed the transaction this one would naturally be supposed to be Matthew, but that he did so does not happen to be indicated. Also, the two accounts differ with re-

spect to some of the expressions of Jesus to the disciples, and of them to Him, given in the *direct oration*. For example, according to Matt., Jesus says: "I have compassion on the multitude, because they continue with me now three days, and have nothing to eat; and I will not send them away fasting, lest they faint by the way." And according to Mark: "I have compassion on the multitude, because they have been with me now three days, and have nothing to eat: and if I send them away fasting to their own houses, they will faint by the way; for divers (different ones) of them came from far." And again according to Matt., His disciples say unto him: "Whence should we have so much bread in the wilderness, as to fill so great a multitude?' And according to Mark they say: "From whence can a man satisfy these men with bread here in the wilderness?" Now we do not know which of these expressions to select as the original ones uttered by Jesus and the disciples, or whether any of them be the original or originals. Moreover the narratives do not quite agree as to the number that was fed, which according to Matt. was four thousand men, besides women and children, and according to Mark about four thousand. This allegorical representation sets forth the same thing in relation to the Christian Church which a prophetic dream or vision might have done. There is the number four (four thousand fed) which is understood to denote world-wide extension, having reference, perhaps, to the Roman Empire, often in Scripture spoken of as the world, but which bears only a small proportion to the size of the whole world as now known, (cf. the four beasts of Daniel, Dan. VII., united at last in one, the Roman Empire, the four winds, the four corners of the earth, the four living creatures upholding the throne of Deity, and the New Jerusalem lying four-square: See Book of Revelation.) And, also, the number seven, denoting completeness, perfection, which symbolizes variously the Deity in relation to the world, and in his providential dealings with it (cf. the stone having seven eyes, Zech. III. 9; the lamb with seven horns and seven eyes, the seven spirits of God; the seven seals, seven trumpets, seven vials, seven thunders: and the beast having seven heads and ten horns, ten being understood as a world number a little over the square of three, and the combination indicating that the complete spiritual and temporal power were united in one, or in other words, that the earthly being or combination which the symbol represented, assumed and exercised the prerogatives of Deity together with that of an earthly power: See Book of Revelation.) The seven loaves would here indicate then that Christianity was designed to be amply sufficient for, and adapted to all mankind; the four thousand that the whole

Roman Empire would be converted to it, at least nominally, which is known to have been accomplished within the first twelve centuries after the preaching of John the Baptist. And the seven baskets full of fragments taken up would still indicate Christianity to be amply sufficient, designed, and adapted for the rest of the world outside of the Roman Empire. Should not this be an encouraging incentive to the faithful and true missionaries of Christianity, not of the Romish, the Greek, or the Reformed Church in particular, but of true and living Christianity, to concentrate and continue their efforts for the spread of the gospel in its true light, and the conversion of the heathen world to its doctrines?

Miracle 25. *He gives sight to a blind man*, at Bethsaida. Mark VIII. 22–26; "And he cometh to Bethsaida; and they bring a blind man unto Him, and besought Him to touch him. And he took the blind man by the hand, and led him out of the town; and when he had spit on his eyes and put his hand upon him he asked him, if he saw ought. And he looked up and said: I see men, as trees, walking. After that he put his hands again upon his eyes, and made him look up; and he was restored, and saw every man clearly. And he sent him away to his house, saying: Neither go into the town, nor tell it to any in the town.

Remarks on the Preceding.

This is recorded in Mark alone, and therefore it is seen we have no evidence that the account is to be understood literally. But the allegory is designed to indicate something with regard to the Church's future. The taking of the blind man by the hand and leading him out of the town by Jesus would indicate that the doctrines of the Gospel were to be communicated to men by peaceable means, that men were to be led, not driven, into a belief of them, won to the Gospel intelligently and freely on their part, and not dragooned into a profession of certain dogmas and doctrines, as was practised so largely by the Church of Rome, nor forced by penal statutes, as was done by the Reformed churches. His coming to his sight gradually, first being able to see men as trees walking, and then being able to see clearly, would indicate that men need to be taught and study for themselves for some time before they have attained perfection in the knowledge of the truth.

The Transfiguration.

Although the transfiguration on the mount is not ordinarily reckoned among the miracles, yet so much account has been and is made of it that we deem it expedient to give a passing review of it here.

According to Matthew XVII. 1–14: "And after six days Jesus taketh Peter, James, and John his brother, and bringeth them up into an high mountain apart, and was transfigured before them: and his face did shine as the sun, and his raiment was white as the light. And, behold, there appeared unto them Moses and Elias talking with him. Then answered Peter and said unto Jesus: Lord, it is good for us to be here; if thou wilt, let us make here three tabernacles; one for thee, and one for Moses, and one for Elias. While he yet spake behold a bright cloud overshadowed them; and behold, a voice out of the cloud, which said: This is my beloved son, in whom I am well pleased; hear ye him. And when the disciples heard it they fell on their face and were sore afraid. And Jesus came and touched them and said: Arise, and be not afraid. And when they had lifted up their eyes they saw no man, save Jesus only. And as they came down from the mountain Jesus charged them saying: Tell the vision to no man until the Son of Man be risen again from the dead. And his disciples asked Him, saying: Why then say the Scribes that Elias must first come? And Jesus answered and said unto them: Elias truly shall first come and restore all things. But I say unto you that Elias is come already, and they knew him not, but have done unto him whatsoever they wished. Likewise shall also the Son of Man suffer of them. Then the disciples understood that He spake unto them of John the Baptist." Mark IX. 2–14: "And after six days Jesus taketh with him Peter and James and John, and leadeth them up into an high mountain apart by themselves; and he was transfigured before them; and his raiment became shining exceeding white as snow, so as no fuller on earth can white them. And there appeared unto them Elias with Moses, and they were talking with Jesus. And Peter answered and said to Jesus: Master, it is good for us to be here: and let us make three tabernacles, one for thee, and one for Moses and one for Elias. For he knew not what to say for they were sore afraid. And there was a cloud that overshadowed them, and a voice came out of the cloud, saying: This is my beloved son: hear him. And suddenly when they had looked round about they saw no man any more, save Jesus only with themselves. And as they came down from the mountain he charged them that they should tell no man what things they had seen till the Son of Man were risen from the dead. And they kept that saying with themselves questioning one with another what the rising from the dead should mean. And they asked him, saying; Why say the Scribes that Elias must first come? And he answered and told them: Elias verily cometh first, and restoreth all things; and how is it written of the Son of Man that he must suffer many things and be set at naught. But

I say unto you that Elias is indeed come, and they have done unto him whatsoever they wished, as it is written of him." Luke IX. 28–37: "And it came to pass about an eight days after these sayings he took Peter and John and James and went up into a mountain to pray. And as he prayed the fashion of his countenance was altered, and his raiment was white and glistening. And behold there talked with him two men which were Moses and Elias, who appeared in glory and spake of his decease which he should accomplish at Jerusalem. But Peter and they that were with him were heavy with sleep; and when they were awake they saw his glory, and the two men that stood with him. And it came to pass as they departed from him Peter said unto Jesus; Master, it is good for us to be here; and let us make three tabernacles, one for thee, and one for Moses, and one for Elias; not knowing what he said, while he thus spake there came a cloud and overshadowed them, and they feared as they entered into the cloud. And there came a voice out of the cloud saying: This is my beloved Son; hear him. And when the voice was past, Jesus was found alone. And they kept it close and told no man in those days any of those things which they had seen.

Remarks on the Preceding.

An account of this is found in three Gospels. Neither of the narrators witnessed it. Although the ascribed writer of the fourth Gospel is represented as one of those three that witnessed it, yet in the fourth alone of all the Gospels it is not mentioned. The narratives differ as to the time of the event. In Matt. and Mark, at the opening of the narrative, it is said that "after six days" and in Luke "about an eight days after these things," all, be it noticed, reckoning from the same point of time, "he taketh Peter and James and John, and bringeth them up into an high mountain, &c." Again, the narratives differ in their statements in the *direct oration;* as, for example, Matt. has the voice to speak from the clouds thus: "This is my beloved son, in whom I am well pleased: hear ye him;" Mark and Luke: "This is my beloved son, hear him." According to Matt., Peter said to Jesus: "Lord it is good for us to be here; if thou wilt, let us make here three tabernacles, one for thee, and one for Moses, and one for Elias;" acc. to Mark and Luke: "Master, it is good for us to be here; and let us make three tabernacles, one for thee and one for Moses, and one for Elias." There is more difference with respect to the position of the words in the Greek than in the English forms of expression here. Now which of these foregoing expressions to select as the original ones, or whether there be any

of them that represent the original, we cannot determine, and, therefore, in such a state of the case, cannot conclude any of them as of literal signification. Still it is not improbable there may have been some event of the nature of a dream or vision which gave rise to this representation of the transfiguration. In Matthew's account of it, Jesus is represented as charging the disciples to tell the vision (ὅραμα) to no man, Matt. XVII. 9. And in Luke's account, it is said Peter and they that were with him were heavy with sleep; and when they were awake, they saw his glory, and the two men that were with him, Luke IX. 32, which might mean that they still perceived the vision in their mind's eye, or reflected upon it. But the design of the allegory or vision is to foreshow the exaltation of the ideal Christ, the glory which would afterwards accrue to Christ from mankind. Has not that design been eminently accomplished; yea, more than that, a person should think, in the great honors and glories which have been ascribed to Christ by the Christian Church for the last eighteen centuries. Where in the range of history or of human experience do we meet with a deified human being, unless it be Buddha, that has been honored so highly as the ideal Christ, or mankind personified in that ideal, has been. Every man of sense, of experience, and of an unbiassed mind, will confess that it is blasphemy to worship a human being known to be such, a sin that will sooner or later draw down the displeasure of the Almighty upon the individual who knowingly does it, or the nation in which it is practised as the national religion.* Take account, if one will, of the great Roman Empire in the east and in Africa, whose seat of government was at Constantinople for nearly a dozen of centuries, and let one ask himself what is the cause of Mahometanism brooding and ruling over it to-day? What is the cause of the crescent's waving where for nearly two thousand years the Roman eagles fluttered in the breeze? Or of Unitarianism now being the reigning religion of Jerusalem, Constantinople, Alexandria, and Antioch, where for so long the cross was revered and the ideal Christ was given divine honors? Mahometanism has, indeed its faults, but it does not teach the worship of a human being, nor tolerate it, or idolatry, in any form. Mahometans revere the memory of Mahomet as a prophet and the apostle of God, but they do not pay him divine honors. Were there a man to have lived and died as Jesus would appear in the Gospels to have done and for the object for which he did it he would certainly be worthy of a meed of praise being paid to his memory on account of his superlative goodness and love and his ex-

* There are various opinions as to Christ. We, for our part, incline to leave freedom of judgment to all, hoping it will be exercised intelligently.

treme self-denial for mankind. The honors, however, that would be paid him would be in grateful appreciation of his character of love and mercy, and for what he had done for mankind, but they would not be of the character of the worship which is due only to the Supreme, infinite, and unknowable God. We will mark the distinction which the divine spirit intended to make in this case in our review farther on of the book of Revelation. We ourself have had visions of men in white garments and *shining* faces, some men of our neighbors and acquaintance holding official position in a *high* branch of the Christian Church, men whose character, we knew by experience, was not the very highest in the world!

Such visions and dreams should not be much thought about, or attended to: the young and the old should always exercise their reason, and walk in the plain path of duty and of rectitude, and let the high ones who spend their time in exercising their powers in influencing and deceiving the minds of others take care of themselves, and not allow them to gain any advantage over them by their seductive schemes.

Miracle 26. He *cures a boy possessed of a devil* at Tabor, Matthew XVII. 14–26: And when they were come to the multitude there came to him a man kneeling down to him, and saying: Lord, have mercy on my son, for he is a lunatick and sore vexed; for ofttimes he falleth into the fire and oft into the water. And I brought him to thy disciples and they could not cure him. Then Jesus answered and said: O faithless and perverse generation, how long shall I be with you? how long shall I suffer you? Bring him hither to me. And Jesus rebuked the devil, and he departed out of him; and the child was cured from that very hour. Then came the disciples to Jesus apart and said: Why could we not cast him out? And Jesus said unto them: Because of your unbelief; for verily I say unto you: If ye have faith as a grain of mustard-seed ye shall say unto this mountain: Remove hence to yonder place; and it shall remove, and nothing shall be impossible unto you. Howbeit this kind goeth not forth but by prayer and fasting." Mark IX. 14–30: "And when he was come to his disciples he saw a great multitude about them and the scribes questioning with them. And straightway all the people, when they beheld him, were greatly amazed, and running to him, saluted him. And he asked the scribes: What question ye with them? And one of the multitude answered and said: Master, I have brought unto thee my son, which hath a dumb spirit; and wheresoever he taketh him, he teareth him; and he foameth and gnasheth with his teeth and pineth away. And I spake to thy disciples that they should cast him out, and they could not. He an-

swered him, and saith: O faithless generation, how long shall I be with you? how long shall I suffer you? Bring him unto me. And they brought him unto him. And when he saw him, straightway the spirit tare him; and he fell on the ground and wallowed, foaming. And he asked his father: How long is it ago since this came unto him? And he said: Of a child: And ofttimes it hath cast him into the fire and into the water to destroy him; but if thou canst do anything have compassion on us and help us. Jesus saith unto him: If thou canst believe, all things are possible to him that believeth. And straightway the father of the child cried out, and said with tears: Lord, I believe; help thou mine unbelief. When Jesus saw that the people came running together he rebuked the foul spirit, saying unto him: Dumb and deaf spirit, I charge thee come out of him, and enter no more into him.

And the spirit cried out, rent him sore, and came out of him; and he was as one dead; insomuch that many said: He is dead. But Jesus took him by the hand and lifted him up, and he arose. And when he was come into the house his disciples asked him privately: Why could not we cast him out? And he said unto them: This kind can come forth by nothing but by prayer and fasting." Luke IX. 37-43: "And it came to pass that on the next day, when they were come down from the hill, much people met him. And, behold, a man of the company cried out, saying: Master, I beseech thee look upon my son; for he is mine only child. And, lo, a spirit taketh him, and he suddenly crieth out; and it teareth him, that he, foameth again, and bruising him hardly departeth from him. And I besought thy disciples to cast him out; and they could not. And Jesus answered and said: O faithless and perverse generation, how long shall I be with you, and suffer you? Bring thy son hither. And as he was yet coming, the devil threw him down and tore him. And Jesus rebuked the unclean spirit, and healed the child, and delivered him again to his father."

Remarks on the Preceding.

This is recorded in three Gospels, immediately after the account of the transfiguration. Of the writers, Mark and Luke not being of the immediate disciples of Christ, it is Matthew, if any, we should expect to have witnessed it. That he did, however, the narratives do not convey. Also, they differ from each other in the address of the man to Jesus, and of the latter to the former, with respect to the lunatic, given in the *direct oration*. According to Matt. it is: "Lord have mercy on my son; for he is lunatic and sore vexed; for ofttimes

he falleth into the fire and into the water. And I brought him to thy disciples, and they could not cure him." Then Jesus answered, and said: "O faithless and perverse generation, how long shall I be with you? how long shall I suffer you? Bring him hither to me." According to Mark it is: "Master, I have brought unto thee my son, which hath a dumb spirit. And wheresoever he taketh him he teareth him; and he foameth and gnasheth with his teeth, and pineth away; and I spake to thy disciples that they should cast him out, and they could not." He answereth him, and saith: "O faithless generation, how long shall I be with you? how long shall I suffer you? Bring him unto me." And, according to Luke it is: "Master, I beseech thee, look upon my son; for he is mine only child. And, lo, a spirit taketh him, and he suddenly crieth out, and it teareth him that he foameth again; and bruising him hardly departeth from him. And I besought thy disciples to cast him out, and they could not." And Jesus answering, said: "O faithless and perverse generation, how long shall I be with you, and suffer you? Bring thy son hither." It is readily seen from the comparison, that no two of these agree exactly in the wording of the addresses on either side; and as all the accounts come to us with the same authority for originality, and we do not know which to select as the originals, we have to recognize them all as unliteral, and seek their allegorical meaning. Then, according to Matt. and Mark, ensues a colloquy between the disciples and Christ as to why they could not cast out the evil spirit; and he informs them, according to Matt., that it was because of their unbelief; "for," says he, "if ye have faith as a grain of mustard-seed, ye shall say unto this mountain: Remove hence to yonder place, and it shall remove, and nothing shall be impossible unto you." But after all this, he says, according to Matt. and Mark: "This kind goeth not out but by prayer and fasting." An intimation, we may believe, as to how miracles are effected, namely, by faith. It was in consequence of the faith of the Father that the cure is represented to have been wrought upon the son in the case before us; (Mark IX. 23–25.) Faith, we are aware, is often very different from fact. A thing we do not actually know, we may believe to be in a certain state as long and as firmly as we please, but still it may not be thus in fact. There are as many chances in favor of its not being so, as there are in favor of its being so, perhaps more. For example, we may believe on faith that an island exists in a certain latitude and longitude in the Pacific Ocean without having any evidence of its existence, but it is just as probable that no island exists there. And we may wish that a literal mountain be removed into the depths of the sea, and after we get out of sight of it may firmly believe it has

been removed in accordance with our wish, but the mountain still stands where it was: and we have a right to our faith. Still faith in God for the prevention and removal of evil is doubtless availing. And we all know that prayer and fasting are good and effectual means for the intemperate, the licentious, and the godless to rid themselves of their evil disposition, inordinate and unholy affections, (their evil spirits), and to reform their habits and their lives. Fasting, rationally practised, purifies the affections and the soul: faithful prayer ensures the assistance of God; and if these are properly persisted in, a cure will doubtless be effected ultimately in the cases in which it can be. Firm faith in the power and goodness of God often also renders great assistance to the soul, and enables one to do and to persist in doing what he would hardly do, did he not exercise this faith. Would not this allegorical representation have been designed to teach us the importance of faith, of fasting, and of prayer, as the most effectual remedies to be employed in such cases as are here represented; and how effectual is the influence of a good and holy man to rid others of their vicious tempers and evil dispositions!

Miracle 27. *He makes a miraculous provision for tribute, at Capernaum*, Matt. XVII. 24–27: "And when they were come to Capernaum they that received tribute money came to Peter and said: Doth not your master pay tribute? He saith; yes. And when he was come into the house Jesus prevented him, saying: What thinkest thou, Simon? Of whom do the kings of the earth take custom or tribute? Of their own children or of strangers? Peter saith unto him: Of strangers. Jesus saith unto him: Then are the children free. Notwithstanding, lest we should offend them, go thou to the sea and cast an hook, and take up the fish that first cometh up; and when thou hast opened his mouth thou shalt find a piece of money; that take, and give unto them for thee and me."

Remarks on the Preceding.

This is recorded only in this place. Supposing the narrator to have witnessed himself what he here relates, his evidence alone might by some be thought to establish the genuineness of the miracle, but that he did the narrative does not bear. The allegory is doubtless designed to teach men that it is their duty to pay taxes in order to support the government under which they live, and which affords protection to their lives and property; and that it is the duty of importers to pay the required tax upon the merchandise they import from foreign countries; and that all should exert themselves in making provision for this by operating in the busy world, which is represented in the allegory by fishing in the sea. It is notice-

able there are not many passages in the Gospels whose design is to restrain governments from oppressing the people by imposing upon them an unjust amount of taxes, or otherwise oppressing them and treating them unjustly. Kings and governments of Christian countries have often acted as if they did not recognize in themselves any responsibilily towards the people they governed. It is to be hoped, however, that such, as well as all subordinate officials, as collectors of customs and of taxes will henceforth have sufficient interest in and love for the people as to do them justice at least, and will recognize the facts that if a man does evil he will experience the penalty of it in himself; and there is no respect of persons with God.

Miracle 28. *He opens the eyes of one that was born blind*, at Capernaum, John IX. 1–41: "And as Jesus passed by he saw a man that was blind from his birth. And his disciples asked him, saying: Master, who did sin, this man or his parents, that he was born blind? Jesus answered: Neither hath this man sinned, nor his parents; but that the works of God should be made manifest in him. I must work the work of him that sent me, while it is day; for the night cometh when no man can work. As long as I am in the world I am the light of the world. When he had thus spoken he spat on the ground and made clay of the spittle, and he anointed the eyes of the blind man with the clay, and said unto him: Go wash in the pool of Siloam (which is, by interpretation, Sent); he went, and came seeing. The neighbors, therefore, and they which before had seen him that he was born blind, said: Is not this he that sat and begged? Some said: This is he; others, he is like him; (but he said, I am he). Therefore, said they unto him: How were thine eyes opened? He answered and said: A man that is called Jesus made clay, and anointed mine eyes, and said unto me: Go to the pool of Siloam, and wash; and I went and washed, and I received sight. Then said they to him: Where is he? He said: I know not. They brought to the Pharisees him that aforetime was blind. And it was the Sabbath-day when Jesus made the clay and opened his eyes. Then again the Pharisees also asked him how he had received his sight. He said unto them: He put clay on mine eyes, and I washed and do see. Therefore said some of the Pharisees, This man is not of God, because he keepeth not the Sabbath-day. Others said: How can a man that is a sinner do such miracles? And there was a division among them. They say unto the blind man again: What sayest thou of Christ, that he hath opened thine eyes? He said: He is a prophet. But the Jews did not believe concerning him that he had been blind and received his sight until they called the parents of him that had received his sight. And

they asked them saying: Is this your son, who ye say was born blind? How then doth he now see? His parents answered them and said: We know that this is our son, and that he was born blind: but by what means he now seeth we know not, or who hath opened his eyes we know not; he is of age; ask him; he shall speak for himself. These words spake his parents, because they feared the Jews; for the Jews had agreed already that if any man did confess that he was Christ, he should be put out of the synagogue. Therefore, said his parents: He is of age, ask him. Then again called they the man that was born blind and said unto him: Give God the praise; we know that this man is a sinner. He answered and said: Whether he be a sinner, I know not; one thing I know, that whereas I was blind, now I see. Then said they to him again: What did he to thee? How opened he thine eyes? He answered them: I have told you already, and ye did not hear; wherefore would ye hear it again? Will ye also be his disciples? Then they reviled him and said: Thou art his disciple: but we are Moses' disciples. We know that God spake unto Moses; as for this fellow, we know not from whence he is. The man answered and said unto them; Why here is a marvellous thing, that ye knew not from whence he is, and he hath opened mine eyes. Now we know that God heareth not sinners; but if any man be a worshipper of God, and doeth his will, him he heareth. Since the world began was it not heard that any man opened the eyes of one that was born blind. If this man were not of God he could do nothing. They answered and said unto him; Thou wast altogether born in sin, and dost thou teach us? And they cast him out, (excommunicated him). Jesus heard that they had cast him out, and when he had found him he said unto him: Dost Thou believe on the son of God? He answered and said: Who is he, Lord, that I might believe on him? And Jesus said unto him; Thou hast both seen him, and it is he that talketh with thee. And he said; Lord, I believe; and he worshipped him: And Jesus said: For judgment I am come into this world, that they which see not might see; and that they which see might be made blind. And some of the Pharisees which were with him heard these words, and said unto him: Are we blind also? Jesus said unto them: If ye were blind ye should have no sin; but now ye say; We see; therefore your sin remaineth."

Remarks on the Preceding.

This miracle is recorded only in John, and to a superficial eye might appear one of the most probable of the whole catalogue of the miracles. That the writer was not a present witness of all he here relates appears, and therefore the want of evidence is one of

the reasons for which we pass it as unliteral. The use of the *oratio directa* throughout in the many turns which the narrative takes plainly shows its allegoric character. Had the narrative left off at the end of the seventh verse of the chapter one might be inclined to suspect that what gave rise to the story was a dream or vision; but considering the whole chapter one concludes it evidently to be an allegory designed to set forth the conversion of the true Christian, and his course in life after it: Would not the man born blind represent the Jew and Gentile in the blindness of their superstitions wherein they lived and died at and before the time Christ is represented to have come? And as men and nations are judged by the laws under which they live, and in the light of the knowledge they possess or may possess,—and both the Jew and the Gentile not knowing any better endeavored to live up to these before Christ came,—then neither this man nor his parents had sinned (John IX. 3), that he should be born blind. But the light of the *Christian doctrine* now beginning to shine through the instrumentality of the first teachers of it, the Pharisees (verse 41) seeing this light and continuing still in their superstitious practices sinned. Would not the application of clay to the eyes of the blind man and the command to go wash in the pool of Siloam have truly represented the application of the simple doctrines of the Gospel, (clay being the simplest and humblest material, truly representing the simplicity and humility of the genuine Christian doctrine, and water as truly representing its cleansing effects upon the human heart,) to the superstitious and ignorant Jews and Gentiles by the true Christian teachers? And would not the going in obedience to the command, and washing in the pool of Siloam indicate an exercise of faith in the promises and doctrines of the Gospel, and a disposition to practise its precepts on the part of those to whom they became known? Would not the occupation also of this blind man, that of begging (John IX. 8), have indicated the class of people which would be most inclined to listen to the Gospel and upon whom the Gospel would produce the greatest and the most radical effects? It is a well known fact that from the humbler ranks of life most of the first converts to Christianity were made, and that the better educated and richer classes never showed much inclination towards it till after the age of Constantine. When the Church united with the world then they came into it in great numbers. And may not that long examination, consisting of questioning and cross questioning, to which the man and his parents were subjected as to the agent and the manner of the opening of his eyes, have represented the questioning, the sneering and scoffing, the jeering, and tantalising, and persecution to which

the true converts to Christianity are, and always have been subjected, not only from the Pharisee and Pagan, but also from the perverted, or Anti-Christian, wherever and in whatever manner he rules? They that will live godly in this present world, wherever they may be, shall have much the same kind of experience as is here represented in the case of the enlightened blind man; in short, they shall suffer persecution. But while patiently undergoing such an ordeal they are crucifying the flesh with its affections and lusts, and are living unto God. And may not the casting out (of the synagogue) (see verse 34,) of this man by the Pharisees have represented the excommunication of the true and humble worshippers of God, not only by Pharisee and Pagan, but by the proud and pampered ecclesiastics called Christian in later times? But let it be known that after he was cast out by the Pharisees he was found and recognized by Christ (verse 35), which will show that God recognizes all acts of self-denial and suffering for his cause; that when for the performance of his duties and the fulfilment of his allegiance to him the true Christian is cast out and contemned and persecuted by the world he will soon be found and recognized of God. This allegorical representation presents to us plainly two sides, the world and God; showing that those who are on the side of the world are opposed to God, for the friendship of the world is enmity with God; and that those who are on the side of God are opposed to the proud and wicked ways of the world; though they are in the world they are not of it; they courageously and patiently fight the battle of God in it, never flinching or deserting from their great and loving Master. The cure being represented as performed on the Sabbath-day would indicate the same as before in similar cases. In the allegory Jesus would symbolize the pure doctrines of the Gospel, and the worship of him would simply indicate a conviction and confession of their truth; for Jesus is a symbol of true doctrine and its communication, and God alone is to be worshipped unsymbolized.

Miracle 29. He *heals a woman of an eighteen years infirmity*, in Galilee, Luke XIII. 11–17. "And behold there was a woman which had a spirit of infirmity eighteen years and was bowed together and could in no wise lift up herself. And when Jesus saw her he called her and said unto her: Woman, thou art loosed from thine infirmity. And he laid his hands on her, and immediately she was made straight, and glorified God. And the ruler of the synagogue answered with indignation, because that Jesus had healed on the Sabbath-day and said unto the people: There are six days in which men ought to work; in them therefore come and be healed, and not on the Sabbath-day. The Lord then answered him, and said: Hypo-

crite, doth not each one of you on the Sabbath-day loose his ox or his ass from the stall, and lead him away to watering? And ought not this woman, being a daughter of Abraham, whom Satan hath bound lo, these eighteen years, be loosed from this bond on the Sabbath-day? And when he had said these things all his adversaries were ashamed: and all the people rejoiced for all the glorious things that were done by him."

Remarks on the Preceding.

This is recorded only in Luke. We seek its allegoric meaning; the writer not being a present witness of what he relates establishes not the narrative's literal import. But may not the healing of that infirm woman, as in the allegory, have represented the beneficial effects which true Christian doctrine would produce in all ages upon a superstitious and sin-sick world? And the long period (eighteen years) during which this woman had suffered from her malady might have been designed to represent the long period before the introduc tion of Christianity, during which the world had suffered from this disease. In all these cases in which cures are represented to be wrought on the Sabbath-day the design is to show the absurdity and wickedness of the Jewish prejudice concerning the keeping of the Sabbath; and the lesson in all cases intended to be taught, is that the Sabbath was made or appointed for man, not to be abused, but to be used for his benefit. This old infirm woman may have faithfully represented Judaism.

Miracle 30. He *cures a man of the dropsy*, in Galilee, Luke XIV. 1–6: "And it came to pass that as he went into the house of one of the chief Pharisees to eat bread on the Sabbath-day that they watched him. And, behold, there was a certain man before him, which had the dropsy. And Jesus answering spake unto the lawyers and Pharisees, saying: Is it lawful to heal on the Sabbath-day? And they held their peace. And he took him, and healed him, and let him go, and answered them, saying: Which of you shall have an ass or an ox fallen into a pit, and will not straightway pull him out on the Sabbath-day? And they could not answer him again to these things."

Remarks on the Preceding.

This miracle is recorded only in this place. Even the narrator witnessed it not, and therefore being without evidence to establish its literal character, we seek its intended meaning. This allegorical representation would appear to have the double object of showing

the beneficial effects which true Christianity would produce upon a world diseased and bloated with sin; and the culpableness of cultivating prejudices concerning the Sabbath to the exclusion of the performance of the necessary works of charity, and beneficence to the needy and the suffering on that day.

Miracle 31. He *cleanses ten lepers*, in Samaria, Luke XVII, 11-19: "And it came to pass that as he went to Jerusalem he passed through the midst of Samaria and Galilee. And as he entered into a certain village there met him ten men that were lepers, which stood afar off. And they lifted up their voices and said: Jesus, Master, have mercy on us. And when he saw them he said unto them: Go shew yourselves unto the priests. And it came to pass that as they went, they were cleansed. And one of them, when he saw that he was healed, turned back, and with a loud voice glorified God, and fell down on his face at his feet, giving him thanks; and he was a Samaritan. And Jesus answering said: Were there not ten cleansed, but where are the nine? There are not found that returned to give glory to God, save this stranger. And he said unto him: Arise, go thy way; thy faith hath made thee whole."

Remarks on the Preceding.

This is recorded only in Luke. The narrator, of course, witnessed it not, and we think we hear the reader say: "Nor any one else," for the statement of ten lepers being associated together at large in any country is too glaringly improbable to be for a moment credited as of literal significance. "One would hardly accept it as a real case," they would say, "upon any amount of evidence, for as such it carries so obviously its own refutation upon the face of it." But nevertheless would not this allegorical representation have been designed to teach us something which is of importance for us to know? Would not the ten lepers (ten being the prophetical world number, a little over the square of three) be intended to represent humanity at large before the introduction of Christianity, suffering from the leprosy of sin and its accompaniments, ignorance of the true God, and superstition? And Jesus is represented in the doctrines of the gospel pointing them to the teachers of the truth to be enlightened from their ignorance and relieved from their superstition, and by the practice of the precepts of the gospel to be divorced from their unholy practices, and healed from their leprosy of sin. But it proceeds to say that "as they went they were cleansed. And one of them, when he saw that he was healed, turned back, and with a loud voice glorified God; and this man was a Samaritan." And Jesus goes on then

to enquire: "Were there not ten cleansed, but where are the nine? There are not found that returned to give glory to God, save this stranger." Then he ascribes the healing of this one to his faith, saying: "Arise, go thy way; thy faith hath made thee whole." They believed the pure doctrines of the gospel, and practised its precepts; were consequently enlightened from their ignorance and superstition, and became reformed from their sinful practices; and while the nine may have lived soberly and honestly before God in a private way of life, the tenth became an active missionary of the gospel, and through his efforts to disseminate the truth gave great glory to God. This one being a Samaritan might indicate that foreign converts would be more zealous than Jewish in the cause of Christianity. The representation is not designed to imply that a man converted to the truth cannot serve and glorify God in a private station, but that God delights most in those who are most active and efficient in advancing his cause of truth and righteousness, be their station what it may.

Miracle 32. He *raises Lazarus from the dead*, at Bethany, John XI. 13–47: "Now a certain man was sick, Lazarus, of Bethany, the town of Mary and her sister Martha. (It was that Mary which anointed the Lord with ointment, and wiped his feet with her hair, whose brother Lazarus was sick.) Therefore his sisters sent unto him, saying: Lord, behold, he whom thou lovest is sick. When Jesus heard it, he said: This sickness is not unto death, but for the glory of God, that the son of God might be glorified thereby. Now Jesus loved Martha and her sister and Lazarus. When he had heard therefore that he was sick he abode two days still in the same place where he was. Then after that, saith he to his disciples: Let us go into Judæa again. His disciples say unto him: Master, the Jews of late sought to stone thee; and goest thou thither again? Jesus answered: Are there not twelve hours in the day? If any man walk in the day he stumbleth not, because he seeth the light of this world. But if a man walk in the night he stumbleth, because there is no light in him. These things saith he, and after that he saith unto them: Our friend Lazarus sleepeth; but I go that I may awake him out of sleep. Then saith his disciples; Lord, if he sleep, he shall do well. Howbeit Jesus spake of his death; but they thought that he had spoken of taking rest in sleep. Then said Jesus unto them plainly: Lazarus is dead. And I am glad for your sakes that I was not there, to the intent ye may believe; nevertheless let us go unto them. Then said Thomas, which is called Didymus, unto his fellow disciples: Let us also go, that we may die with him. Then when Jesus came he found that he had lain in the grave four days already. Now Bethany was nigh unto Jerusalem, about fifteen furlongs off; and many of the Jews came to

Martha and Mary to comfort them concerning their brother. Then Martha, as soon as she heard that Jesus was coming, went and met him, but Mary sat in the house. Then said Martha unto Jesus: Lord, if thou hadst been here, my brother had not died. But I know that even now whatsoever thou shalt ask of God, God will give it thee. Jesus saith unto her: Thy brother shall rise again. Martha said unto him: I know that he shall rise again in the resurrection at the last day. Jesus said unto her: I am the resurrection and the life; he that believeth in me, though he were dead, yet shall he live; and whosoever liveth and believeth in me shall never die. Believest thou this? She saith unto him: Yea, Lord; I believe that thou art the Christ, the son of God, which should come into the world. And when she had so said, she went her way and called Mary her sister secretly, saying: The master is come, and calleth for thee. As soon as she heard that she arose quickly and came unto him. Now Jesus was not yet come into the town, but was in the place where Martha met him. The Jews then which were with her in the house, and comforted her, when they saw Mary that she rose up hastily and went out, followed her, saying; She goeth unto the grave, to weep there. Then when Mary was come where Jesus was and saw him, she fell down at his feet, saying unto him: Lord, if thou hadst been here, my brother had not died. When Jesus, therefore, saw her weeping, and the Jews also weeping which came with her, he groaned in the spirit, and was troubled, and said: Where have ye laid him? They say unto him: Lord, come and see. Jesus wept. Then said the Jews: Behold how he loved him! And some of them said: Could not this man, which opened the eyes of the blind, have caused that even this man should not have died? Jesus, therefore, again groaning in himself, cometh to the grave. It was a cave, and a stone lay upon it. Jesus said: Take ye away the stone. Martha, the sister of him that was dead, saith unto him: Lord, by this time, he stinketh; for he hath been dead four days. Jesus saith unto her: Said I not unto thee, that if thou wouldst believe, thou shouldst see the glory of God? Then they took away the stone (from the place) where the dead was laid. And Jesus lifted up his eyes and said: Father, I thank thee that thou hast heard me. And I knew that thou hearest me always; but because of the people which stand by, I say it, that they may believe that thou hast sent me. And when he thus had spoken, he cried with a loud voice: Lazarus, come forth. And he that was dead came forth, bound hand and foot with grave-clothes; and his face was bound about with a napkin. Jesus saith unto them: Loose him, and let him go. Then many of the Jews which came to Mary and had seen the things which Jesus did, believed on him. But some of

them went their ways to the Pharisees, and told them what things Jesus had done.

Remarks on the Preceding.

This miracle is recorded only in this place. The allegorical character of the narrative is shown in the use of the *oratio directa* or *direct discourse* throughout all the turns and phases of the narrative. The writer, in order to be an eye and ear-witness of all he relates,—and this he would necessarily have to be if the *oratio directa* literally imports,—would have to be omnipresent, and along with this an extraordinarily apt reporter. We find him first knowing the precise words which the messenger of the sisters of Lazarus communicates to Jesus concerning the sickness of Lazarus, John XI. 2; and the precise words which Jesus speaks in return, verse 4; the precise words which Jesus speaks to the disciples, and they to him, in the long conversation which ensued between them on the reception of this news, verses 7–15; and we find him knowing even the thoughts and intents of Jesus, verses 13–15; the precise words which Thomas uses when speaking to his fellow-disciples about Lazarus, verse 16; the precise words which Martha speaks to Jesus, and he to her, on the occasion of her meeting him on his way to her house, verses 21–28; the precise words which Martha speaks to her sister in the house when she announces to her the arrival of Jesus, verse 28; the precise words which the Jews who were in the house spoke concerning Mary when they saw her go hastily out on Martha having communicated some information to her, verse 31; the precise words which Mary spoke to Jesus on coming to him, which by the way is represented in the English Bible as the same expression which Martha had used in speaking to him, but is not exactly the same in the Greek as to the words or their relative positions, verse 32; the precise words in which Jesus asks where they had lain him; and the precise words of the answer they make him to that question, verse 34. The precise words of the Jews in their conversation with each other as to the disposition and powers of Jesus, verses 36, 37; the precise words of Jesus on his coming to the grave and commanding them to take away the stone; and the precise words which Martha spoke to him in reply, and those again of him in reply to her, verses 39, 40; the precise words of Jesus in his prayer to his Father, in which he acquaints the Deity that it is because of the bystanders he addresses him in prayer, in order that they may believe that God had sent him, verses 41, 42; and the precise words of Jesus in his command to Lazarus to come forth, verse 43; and in his command to the by-

standers to loose him and let him go, verse 44. The design of the allegory is doubtless to represent the elevation of humanity from the death of ignorance, and superstition, and sin to a life of knowledge, of holiness, and of all godliness. All the characters in the allegorical drama represent agents in this resurrection. Christ represents the true and pure doctrines of the gospel; the disciples the true ministers or missionaries of these doctrines; and Martha and Mary represent the female agency which has always been found so favorable to the Christian cause, and so instrumental, when themselves civilized, and enlightened in truth and genuine Christianity, in the civilization and cultivation of men. And the mourning Jews would represent mankind coming to a realizing sense of their spiritually dead condition. But the most efficacious means of this resurrection was to be the enlightening, the purifying, and the soul-reviving doctrines of the Gospel, which bring men to a knowledge of the true God, and teach them to be good and do good. Hence Jesus says; "I" (gospel truth) "am the resurrection and the life; he that believeth in me, though he were dead" (meaning dead in ignorance and sin; for if a man had died a natural death he is past believing anything) "yet shall he live. And whosoever liveth and believeth in me shall never die," (meaning the death of superstition, ignorance, and sin, not a natural death; for all men die that). The condition in which humanity was at the time of the first promulgation of the gospel, is represented by a human body four days dead, and consequently in the first stage of decay and beginning to stink. Jesus crying with a *loud voice*, "Lazarus come forth," represents the voices of the heralds of the gospel by which the dead in superstition and trespasses and sins would be awakened to a sense of their condition, and moved to activity in doing good and in living a new life in the world. Lazarus comes forth from the tomb bound up in grave-clothes, and his face bound about with a napkin, representing how men are bound up in their ignorance and superstition, and in their gaudy display of vain and empty ceremonial, having no life-imparting energy; as it were a veil of superstition and of worldliness thrown over their hearts, and bands of superstition and of worldly ceremonial binding and restraining them from active energy in the cause of the truth and godliness; and the eyes of their understanding blindfolded, and the ears closed, until the sound of the gospel strikes upon their ears, and rings the alarm-bell at the door of their hearts, and its unmixed truth enlightens the eyes of their understanding. And the agents who loose him and let him go, verse 44, represent the true ministers or missionaries of the gospel, who free men from the bonds of superstition and of ungodliness by bringing them into a knowledge of the

truth, to be good and to do good. The representation of a dead man coming forth from the grave unassisted by human hands, while bound hand and foot with grave-clothes, and his face bound about with a napkin (verse 44) at once shows itself to be unliteral; for how can it be supposed that a dead man could come forth in such a condition?

Miracle 33. *He gives sight to two blind men*, at Jericho, Matt. XX. 29–34: "And as they departed from Jericho a great mulitude followed him. And, behold, two blind men, sitting by the wayside, when they heard that Jesus passed by, cried out, saying; Have mercy on us, O Lord, son of David. And the multitude rebuked them, because they should hold hold their peace; but they cried out the more, saying: Have mercy on us, O Lord, son of David. And Jesus stood still and called them, and said: What will ye that I shall do unto you? They say unto him; Lord, that our eyes may be opened. So Jesus had compassion on them and touched their eyes; and immediately their eyes received sight, and they followed him." Mark X. 46–52: "And they came to Jericho; and as he went out of Jericho with his disciples and a great number of people, blind Bartimæus, the son of Timæus, sat by the highway side, begging. And when he heard it was Jesus of Nazareth he began to cry out, and say: Jesus, son of David, have mercy on me. And Jesus stood still, and commanded him to be called. And they call the blind man, saying unto him: Be of good comfort, rise, he calleth thee. And he, casting away his garment, rose and came to Jesus. And Jesus answered and said unto him: What wilt thou that I should do unto thee. The blind man said unto him: Lord, that I might receive my sight. And Jesus said unto him: Go thy way; thy faith hath saved thee. And immediately he received his sight, and followed Jesus in the way." Luke XVIII. 35–43: "And it came to pass that as he was come nigh unto Jericho, a certain blind man sat by the wayside, begging. And hearing the multitude pass by, he asked what it meant. And they tell him that Jesus of Nazareth passeth by. And he cried, saying: Jesus, son of David, have mercy on me. And they which went before rebuked him that he should hold his peace; but he cried so much the more: Son of David, have mercy on me. And Jesus stood and commanded him to be brought unto him; and when he was come near he asked him, saying: What wilt thou that I shall do unto thee? And he said: Lord, that I may receive my sight. And Jesus said unto him: Receive thy sight; thy faith hath saved thee. And immediately he received his sight, and followed him, glorifying God; and all the people when they saw it gave praise unto God."

Remarks on the Preceding.

This miracle is recorded in three Gospels. That any of the writers witnessed himself what he relates we are not given to know, and therefore seek the allegoric meaning. The narratives differ *first*, in that while Matthew has two blind men to have been given sight, Mark and Luke have only one; *second*, they differ as to the place of the miracle, Matthew and Mark having the event to take place as Jesus goes out of Jericho, Luke as he comes nigh unto Jericho, and before he enters it. It is known to be the same event which is meant to be related in all three, as this narrative is immediately preceded and followed, certainly in Matthew and Mark, by a relation of the same events; and in Luke it is so connected with what precedes and follows it in narration, and so similarly worded to the narrative in Mark, as to leave little doubt that the same event is meant. Also Bible interpreters understand the same event to be meant to be related, as is shown in the margins of reference Bibles. But, moreover, there is sufficient difference in the statements in the *direct oration* in the narratives in Mark and Luke, to show that they cannot both be authentic accounts by eye and ear witnesses of the same event. It is, however, understood before that Mark and Luke did not themselves witness what they relate; and, besides, this event, as related by Matthew, appears altogether improbable to have taken place, that two blind men should be found abroad associated together. We have dealt with a similar case as found in Matthew IX. 27. These then are important differences, *first*, as to the number of blind men to which sight was given; *second*, as to the place where the operation of giving sight was performed, differences in narratives of the same event which, coming to us with equal authority for originality, render them all to us nugatory as to their having a literal signification. But it is most probable that the design of this allegory is to indicate the enlightenment which Christianity by the gospel would impart to mankind, now and hitherto blind in ignorance and superstition.

Miracle 34.—*He blasts the fig-tree, Mount Olivet*,—Matt. XXI. 17-22: "And he left them, and went out of the city into Bethany, and lodged there. Now in the morning, as he returned into the city, he hungered. And when he saw one fig-tree in the way, he came to it and found nothing thereon, but leaves only, and said unto it: Let no fruit grow on thee henceforward for ever. And presently the fig-tree withered away. And when the disciples saw it they marvelled, saying: How soon is this fig-tree withered away. Jesus answered and said unto them: Verily I say unto you: If ye have faith

and doubt not, ye shall not only do this which is done to the fig-tree, but also if ye shall say unto this mountain: Be thou removed, and be thou cast into the sea, it shall be done. And all things, whatever ye shall ask in prayer, believing, ye shall receive." Mark XI. 12–15, 20–24; "And on the morrow, when they were come from Bethany, he was hungry, and seeing a fig-tree afar off, he came, if haply he might find anything thereon; and when he came to it, he found nothing but leaves; for the time of figs was not yet. And Jesus answered and said unto it: No man eat fruit of thee hereafter forever. And his disciples heard it." Here it is related that he comes into the city and performs the miracle of casting the traders out of the temple, and in the evening again goes out of the city (to Bethany implied), whence they return again to the city in the morning—"And in the morning as they passed by they saw the fig-tree dried up from the roots. And Peter, calling to remembrance, saith unto him: Master, behold the fig-tree which thou cursedst is withered away. And Jesus, answering, saith unto them: Have (the) faith of God. For verily I say unto you, that whosoever shall say unto this mountain: Be thou removed, and be thou cast into the sea, and shall not doubt in his heart, but shall believe that those things which he saith shall come to pass; he shall have whatsoever he saith. Therefore, I say unto you: What things soever ye desire, when ye pray, believe that ye receive them, and ye shall have them."

Remarks on the Preceding.

This miracle is found recorded in two Gospels. That either of the writers witnessed himself what he here relates we are not given to understand, and, therefore, seek the meaning intended to be conveyed. There are important differences in the two narratives. According to Matthew, Jesus goes in the evening out of Jerusalem to Bethany, a distance of nearly two miles, and lodges there for the night; and in the morning as he is returning with his disciples into the city, being an hungered, and seeing a lone fig-tree at a distance, he goes to see if happily he may find some fruit thereon, but finding nothing thereon but leaves, he says to it: Let no fruit grow on thee henceforward forever; and *immediately* the fig-tree withered away. And *his disciples*, seeing, (at once) what was done, marvelled, saying: *How soon* is this fig-tree withered away. Mark has the blasting of the fig-tree to take place on the same morning as Matthew has it; but the disciples, according to Mark, do not recognize it till the next morning afterwards. Mark represents him as going from Jerusalem to Bethany

with the twelve disciples on the same evening as Matthew does, returning to Jerusalem the next morning, and on his way cursing the fig-tree, his disciples hearing what he says: after remaining in Jerusalem that day, going out of the city in the evening—perhaps to Bethany is meant, but it is not said,—and on the next morning, as they pass on their return to the city, they recognize the fig-tree withered from the roots. "And *Peter calling to remembrance* saith unto him: Master, behold, the fig-tree which thou cursedst is withered away." And Jesus answers him: "Have faith of God" (not only faith in God, as translated in our Bible), "for verily I say unto you that whosoever shall say unto this mountain (probably the representation means Olivet, the scene of the story): Be thou removed, and be thou cast into the sea, and shall not doubt in his heart, but shall believe that those things which he saith shall come to pass, he shall have whatsoever he saith. Also according to Matthew, Jesus says to the fig-tree: "Let no fruit grow on thee henceforward forever"; but acc. to Mark, it is: No man eat fruit of thee hereafter forever. And acc. to Matt., the disciples say: "How soon is the fig-tree withered away;" but acc. to Mark, Peter says to him on the next morning after that on which the cursing was done, on his recognizing the tree withered: Master, behold, the fig-tree which thou cursedst is withered away. Moreover, acc. to Mark, the time of figs had not yet come, which would render it very inconsistent and unreasonable of Jesus to exert his power in destroying a fig-tree because it had not brought forth before the proper time. Truly the Saviour of the world might in such a case be said to be exerting his power inconsiderately, a thing we could not expect. The reference of this vision or allegory, is, doubtless, to the rejection of Judaism for the non-performance of its duties, the non-fulfilment of its real mission in the presentation of itself as an example of living, active godliness to the Gentile world, and in the advancement of the cause of truth among mankind beyond it own limits. And the finding of leaves on the tree, and no fruit, might represent the old tree of Judaism as covered with the leaves of superstitious observances, and of carnal ordinances, but with none of the fruits of living faith, active love and godly zeal, namely, good works. Have we not too many of these kind of fig-trees represented in the Christian churches to day? And how long ere they have something better than leaves to display? How long ere the Spirit of truth and of active godliness shall prevail in them, to the exclusion of all error, and pride, and superfluous observances, and carnal ordinances?

How long ere all called Christians shall with one heart and with united effort advance the cause of truth (truth, we mean, unmixed with error) and of righteousness in the world? It is high time that all called Christians should come to the knowledge of this all-important truth, that it is necessary for them to be good and to do good themselves, individually and collectively, to advance the cause of God in the world. And in this allegory Jesus and his disciples would represent gospel truth, and its ministers or missionaries.

Miracle 35. *He casts the traders out of the temple a second time*,—Jerusalem, Matt. XXI. 12–17: "And Jesus went into the temple of God, and cast out all them that sold and bought in the temple, and overthrew the tables of the money-changers, and the seats of them that sold doves; and said unto them: It is written: My house shall be called the house of prayer, but ye have made it a den of thieves. And the blind and the lame came to him into the temple, and he healed them. And when the chief priests and the scribes saw the wonderful things that he did, and the children crying in the temple and saying: Hosanna to the son of David; they were sore displeased, and said unto him: Hearest thou what these people say? And Jesus saith unto them: Yea, have ye never read: Out of the mouths of babes and sucklings thou hast perfected praise." Mark XI. 11, 15–20; "And Jesus entered into Jerusalem, and into the temple; and when he had looked round about upon all things, and now the even was come, he went out unto Bethany, with the twelve."—Here is related the cursing of the fig-tree on the next morning—"And they come to Jerusalem, and Jesus went into the temple, and began to cast out them that sold and bought in the temple, and overthrew the tables of the money-changers, and the seats of them that sold doves; and would not suffer that any man should carry any vessel through the temple. And he taught, saying unto them: Is it not written: My house shall be called by all nations the house of prayer; but ye have made it a den of thieves. And the scribes and chief priests heard it, and sought how they might destroy him; for they feared him, because all the people was astonished at his doctrine. And when even was come he went out of the city." Luke XIX, 45–47: "And he went into the temple, and began to cast out them that sold therein, and them that bought; saying unto them: It is written: My house is the house of prayer, but ye have made it a den of thieves."

Remarks on the Preceding.

This second casting of the traders out of the temple is mentioned

in three Gospels. Of the writers we already know that Mark and Luke are not reckoned among the number of the immediate disciples of Christ, so that they may not be suspected to have witnessed it, nor are we given to understand that Matthew did, and consequently the meaning of the narrative we seek and find in allegory. The narratives differ with respect to the time when the event took place. Matthew has it to take place on the *same day* of Christ's royal entry into Jerusalem, riding on an ass, and *before* the blasting of the fig-tree, which he has to take place on the following morning. Mark has it to take place on *the next day after* his royal entry to the city, and *after* the blasting of the fig-tree, which last event he places on the morning of the same day on which he drove the traders out of the temple. In Luke it is not said on which of these days he ousted the traders, but the connection might seem to imply that it was on the same day of his royal entry. This difference as to the time of the event in narratives which come to us with equal authority for authenticity at once throws confusion into the ranks of the testators, and declares the representation to be unliteral. Moreover, with respect to the expressions Christ makes use of to the traders, in Matthew, it is: "My house shall be called the house of prayer, but ye have made it a den of thieves;" in Mark: "Is it not written: My house shall be called by all nations the house of prayer; but ye have made it a den of thieves;" in Luke: It is written: "My house is the house of prayer, but ye have made it a den of thieves." Which of these expressions Jesus made use of, or whether he made use of either we cannot determine, and therefore cannot conclude any of them as of literal signification. This visionary or allegorical representation of the second cleansing of the temple is doubtless designed to typify the cleansing and purifying of God's Church, which was long trodden under foot and profaned by the world, by means of the purifying and refining doctrines of the Gospel. Christ there represents the true doctrines of the Gospel, and the disciples the active ministers in its promulgation. It also sets forth the purpose for which the temple of God is designed, namely, to be a house for prayer, and for the worship of the true God, and not to be used for worldly purposes. As for that particular temple at Jerusalem, it remained in the hands of the Jews, until it was destroyed by the Romans in about the year 70 A. D.; and therefore the allusion in the allegory to the cleansing ot the temple by Christ would be to the overthrowing and eradicating of the old superstitions of the Roman Empire, the Jewish among the rest, and their being supplanted by the new and true religion which was just begun to be introduced; as well as to the reformation and purification of each

temple in particular by the subversion and destruction of its idols of gold and silver and brass and wood, and the using it for the worship and praise of God alone. Even if all three narratives exactly agreed in every respect as to the casting out of the traders, still the idea of their having a literal signification would seem unreasonable.

Miracle 36. *He heals Malchus' ear in Gethsemane.* Matthew XXVI. 50–55: "Then came they and laid hands on Jesus, and took him. And, behold, one of them which were with Jesus stretched out his hand and drew his sword, and struck a servant of the high priest's, and smote off his ear. Then said Jesus unto him: Put up again thy sword into his place; for all they that take the sword shall perish with the sword. Thinkest thou that I cannot pray to my Father, and he shall presently give me more than twelve legions of angels? But how then shall the Scriptures be fulfilled that thus it must be?" Mark XIV. 46–49: "And they laid their hands on him, and took him. And one of them that stood by drew a sword, and smote a servant of the high priest, and cut off his ear. And Jesus answered and said unto them: Are ye come out as against a thief with swords and staves to take me, &c.?" Luke XXII. 50, 51: "And one of them smote a servant of the high priest, and cut off his right ear. And Jesus answered and said: Suffer ye thus far. And he touched his ear and healed him." John XVIII. 10, 11: "Then Simon Peter, having a sword, drew it, and smote the high priest's servant, and cut off his right ear. The servant's name was Malchus. Then said Jesus unto Peter: Put up thy sword into the sheath; the cup which my Father hath given me to drink shall I not drink it?"

Remarks on the Preceding.

It is seen that the wounding or cutting off of the ear is mentioned in the four Gospels, but the healing is mentioned in only one (Luke), whose writer we are aware, did not himself witness what he relates. And would it not seem strange (we are now addressing those who have been accustomed to believe in the literality of the miracles), that Matthew and John, or the ascribed writers of the first and fourth Gospels, being represented as two of the disciples who were wont to accompany Jesus, and who, it might naturally and reasonably be supposed, would be with him just then, do not mention it? In Matthew and Mark, Peter and James and John are in particular represented as being with Jesus at the time of this event, and the disciples are not represented to have forsaken him and fled till after it. And in the other two narratives, those of Luke and John, it is implied that the disciples were with him at the time of the event. The narrative does not say that the ear which was cut off was put on

again, only that he (Christ) touched his ear and healed him. And even this, though seemingly insignificant when compared with other representations of miracles which we have reviewed, would, if of literal interpretation, be of a miracle. But because the evidence which we have does not undeniably establish the miracle, but rather obviates such necessity, it does not follow that the vision or allegory has not a design, which is doubtless to set forth the future relation of Judaism to Christianity. The ear, in Scripture prophetic language, would indicate the hearing, the understanding; and this being represented as taken away from the servant of the high priest, who, be it noticed, was also his kinsman (John XVIII. 26,), indicated that the Jewish people would lack a hearing ear and an understanding heart with respect to Christianity. The healing of the ear indicated that Christianity would have the power of remedying that, at least to some extent, and would ultimately do so when presented to the Jews in its simplicity and purity, by which the Jews would hear and accept its doctrines, and become to a large extent converted to it. This should be an encouraging incitement to the faithful and true missionaries of Christianity to exert themselves and do all in their power for the conversion to the truth of their brethren the Israelites. The servant whose ear was cut off, being the priest's kinsman, indicates that the Jewish people were meant. And the servants, or hearers, are those upon whom the priests depend; without hearers there would be no need of priests or priesthood; but be it noticed that the ear was taken away with respect to Christianity, not with respect to Judaism, for the servant still remained to the priest.

Miracle 37. *He causes a miraculous draught of fishes*,—Sea of Galilee, John XXI. 1–14: "After these things, Jesus showed himself again to the disciples at the sea of Tiberias, and on this wise showed he himself. There were together, Simon Peter, and Thomas, called Didymus, and Nathaniel of Cana, of Galilee, and the sons of Zebedee, and two other of his disciples. Simon Peter saith unto them; I go a-fishing: they say unto him: We also go with thee. They went forth and entered into a ship immediately, and that night they caught nothing. But when the morning was now come, Jesus stood on the shore; but the disciples knew not that it was Jesus. Then Jesus saith unto them: Children, have ye any meat? They answered him: No. And he said unto them: Cast the net on the right side of the ship, and ye shall find. They cast therefore, and now they were not able to draw it, for the multitude of fishes. Therefore that disciple saith unto Peter: It is the Lord. Now when Simon Peter heard that it was the Lord, he girt his fisher's coat about him (for he was naked), and did cast himself into the sea. And the other disciples

came in a little ship (for they were not far from land, but as it were two hundred cubits), dragging the net with fishes. As soon then as they were come to land they saw a fire of coals, and fish laid thereon, and bread. Jesus saith unto them: Bring of the fish which ye have now caught. Simon Peter went up and drew the net to land, full of great fishes, an hundred and fifty and three; and for all there was so many, yet was not the net broken. Jesus saith unto them: Come and dine. And none of the disciples durst ask him: who art thou? knowing that it was the Lord. Jesus then cometh and taketh bread, and giveth them, and fish likewise. This is now the third time that Jesus showed himself to his disciples after he was risen from the dead."

Remarks on the Preceding.

This is recorded only in John. The design of the prophetic allegory is to set forth the fatherly and providential care of God over his servants who were engaged or would be engaged in founding or extending the true Christian Church. It is seen to this day, that God provides for his servants, the true Christian ministers, or missionaries for the truth, by whatever name they are called; and, indeed, for all who are devoted to, or engaged in any way in his service. Such men may have hours and days of darkness, discouragement, and trial; they may suffer deprivations and persecutions and want; they may toil all night and have nothing for their pains; but such seasons, be they short or long, shall have an end; God will always be near to comfort and encourage them; heaviness may remain during the night of affliction; but the morning light of hope, and of returning success, brings to them encouragement and joy. God will always make abundant provision for them, provided they are dutiful, industrious, and provident themselves, and in ways they may not expect; for besides the nets full, which by God's assistance, they shall receive as the result of their honest toil, there will be fish awaiting them, ready cooked upon the coals; and also bread. But we do not learn that any further advantage accrues to the impetuous Peters, who hastily and inconsiderately throw themselves into a sea of troubles, in order the sooner to attain their object, than to those who remain in the ship (supposing this to be the ark of truth; there are false, unsafe ships in which they should not remain for a single moment, when they can escape safely to land or enter a safe one), who reach the dry land as soon, bringing their fish with them. Nor need they be less energetic and enterprising, less active in the accomplishments of the good objects they have in view, while they use a proper consideration and judgment in all their proceedings. The

missionaries of the truth are expected and called upon to use their reason, as well as the men of the world.

These are about the sum of the recorded miracles of Jesus, and the language in which they are given may be called prophetic symbolism, or allegory. We have given them in chronological order, as arranged in the Polyglott, and our best Reference Bibles.

As to the Preliminaries to the Trial; The Trial, Crucifixion, Resurrection, and Post-Resurrection Appearances of Jesus, According to the Four Gospels, Examined and Compared from the Original Greek.

1st. *The rulers conspire against Christ; the woman anoints him; and Judas sells him. He eats the Passover; institutes his Holy Supper; prays in the garden, and, betrayed with a kiss, is carried to the high priest; is denied of Peter, and arraigned before Pilate.*

Matt. XXVI. 1–6: "And it came to pass when Jesus had ended all these sayings (a discourse which he is represented as delivering concerning the final judgment), he said unto his disciples: Ye know that after two days is the feast of the Passover, and the Son of Man is betrayed to be crucified. Then assembled together the chief priests and the scribes and the elders of the people unto the palace of the high priest, which was called Caiaphas, and consulted that they may take Jesus by subtilty and kill him. But they said: Not on the feast day, lest there be an uproar among the people." *The same acc. to Mark* XIV. 1–3: "After two days was the feast of the Passover, and unleavened bread; and the chief priests and the scribes sought how they might take him by craft and put him to death. But they said: Not on the feast day, lest there be an uproar among the people." *The same acc. to Luke* XXII. 1–3: "Now the feast of unleavened bread drew nigh, which is called the Passover. And the chief priests and scribes sought how they might kill him; for they feared the people." That corresponding to the same in *John* XI. verse 47 to end of chapter: "Then gathered the chief priests and the Pharisees a council and said: What do we? for this man doeth many miracles. If we let him thus alone all men will believe on him, and the Romans shall come and take away both our place and nation (something, we may remark, they had already in possession before Christ is represented to have come). And one of them, named Caiaphas, being the high priest that same year, said unto them: Ye know nothing at all, nor consider that is it expedient for us that one man should die for the people, and that the whole nation perish not. And this he spake, not of himself, but being high priest

that year, he prophesied that Jesus should die for that nation; and not for that nation only, but that he should gather together in one the children of God that were scattered abroad. Then from that day forth they took counsel together for to put him to death. Jesus, therefore, walked no more openly among the Jews; but went thence into a country near to a wilderness into a city called Ephraim, and there continued with his disciples. And the Jews' Passover was nigh at hand; and many went out of the country up to Jerusalem before the Passover to purify themselves. Then sought they for Jesus, and spake among themselves as they stood in the temple: What think ye, that he will not come to the feast? Now both the chief priests and the Pharisees had given commandment that if any man knew where he was he should show it, that they might take him."

Remarks on the Preceding.

These accounts do not contradict each other. But it is noticeable that we find the writer of the narrative in John knowing exactly what the chief priests and Pharisees said in their deliberations concerning Christ, verses 47, 48; the exact words of the speech of Caiaphas, verses 49, 50: that Caiaphas spoke what he did, not of himself, but prophetically, that Jesus should die that year, not only for the Jewish nation, but to gather together in one the children of God that were scattered abroad, verses 51, 52. While these narratives are immediately preceded in the first three Gospels by the prophetical accounts of the destruction of Jerusalem and the last judgment, and their place is near the end of these Gospels; in John it occupies a place farther back; and is immediately preceded by the accounts of the raising of Lazarus, and the prophecy of Caiaphas, which last two events are, however, only mentioned in John, as we have seen; and the last three verses of John XI. are those which may be regarded as directly corresponding to the accounts of the other three. These accounts are immediately followed in all cases except in Luke by the account of the woman anointing Jesus.

THE FOUR NARRATIVES CONTINUED.

Matthew XXXVI. 6–14: "Now when Jesus was in Bethany in the house of Simon, the leper, there came unto him a woman having an alabaster box of very precious ointment, and poured it on his head as he sat at meat. But when his disciples saw it they had indignation, saying: To what purpose is this waste? For this ointment might have been sold for much, and given to the poor. When Jesus understood it he said unto them: Why trouble ye the woman? for

she hath wrought a good work upon me; for ye have the poor always with you, but me ye have not always. For in that she hath poured this ointment on my body she did it for my burial. Verily, I say unto you, wheresoever this gospel shall be preached in the whole world, there shall also this that this woman hath done be told for a memorial of her." *According to Mark* XIV., 3–10: "Adn being in Bethany, in the house of Simon, the leper, as he sat at meat, there came a woman having an alabaster box of ointment of spikenard, very precious; and she brake the box, and poured it on his head. And there were some that had indignation within themselves, and said: Why was this waste of the ointment made? for it might have been sold for more than three hundred pence, and given to the poor. And they murmured against her. And Jesus said: Let her alone: why trouble ye her? She hath wrought a good work on me. For ye have the poor with you always, and whensoever ye will ye may do them good; but me ye have not always. She hath done what she could; she is come aforehand to anoint my body for the burial. Verily I say unto you: Wheresoever this gospel shall be preached throughout the whole world, this also that she hath done shall be spoken of for a memorial of her." *That corresponding to the same in Luke, ch.* VII., v. 36, *to the end of chapter:* And one of the Pharisees desired him that he would eat with him; and he went into the Pharisee's house and sat down to meat. And, behold, a woman in the city which was a sinner, when she knew that (Jesus) sat at meat in the Pharisee's house, brought an alabaster box of ointment; and stood at his feet behind him, weeping, and began to wash his feet with tears, and did wipe them with the hairs of her head, and kissed his feet, and anointed them with the ointment. Now when the Pharisee which had bidden him saw it he spake within himself saying: This man, if he were a prophet, would have known who and what manner of woman this is that toucheth him; for she is a sinner. And Jesus answering said unto him: Simon, I have somewhat to say unto thee. And he saith: Master, say on. There was a certain creditor which had two debtors; the one owed him five hundred pence, and the other fifty; and when they had nothing to pay he frankly forgave them both. Tell me, therefore, which of them will love him most? Simon answered and said: I suppose that he to whom he forgave most. And he said unto him: Thou hast rightly judged. And he turned to the woman, and said unto Simon: Seest thou this woman? I entered into thy house; thou gavest me no water for my feet; but she hath washed my feet with tears and wiped them with the hairs of her head. Thou gavest me no kiss; but this woman since the time I came in hath not ceased to kiss my feet. My head with oil

thou didst not anoint; but this woman hath anointed my feet with ointment. Wherefore I say unto thee: Her sins, which are many, are forgiven; for she loved much; but to whom little is forgiven the same loveth little. And he said unto her: Thy sins are forgiven. And they that sat at meat with him began to say within themselves: Who is this that forgiveth sins also? And he saith to the woman: Thy faith hath saved thee, go in peace."

The same acc. to John XII., 1–9: "Then Jesus, six days before the Passover came to Bethany, where Lazarus was which had been dead, whom he raised from the dead. There they made him a supper, and Martha served; but Lazarus was one of those that sat at the table with him. Then took Mary a pound of the ointment of spikenard, very costly, and anointed the feet of Jesus, and wiped his feet with her hair; and the house was filled with the odor of the ointment. Then saith one of his disciples—Judas Iscariot, Simon's son, which should betray him—Why was not this ointment sold for three hundred pence, and given to the poor? This he said, not that he cared for the poor, but because he was a thief, and had the bag, and bare what was put therein. Then said Jesus: Let her alone, against the day of my burying hath she kept this; for the poor always ye have with you, but me ye have not always."

Remarks on the Preceding.

The narrative is such, as to disposition and wording, in three cases, Matthew, Mark, and John, as not to leave any doubt that the same event is intended to be described; and it is so worded in the other case, in Luke, as to leave scarcely any doubt, not any indeed to the candid and unprejudiced investigator, that it is intended to describe the same thing. In Matthew and Mark it stands in connection with similar events preceding and following it, immediately after the consultation of the priests, &c., to kill Jesus, and immediately before Judas makes arrangements with the priests to betray him to them. The account in Luke being in the early part of that gospel, ch. VII., stands in no such connection of events preceding and following it in narration; for where it would stand in Luke, if in a similar position and connection with the account in Matthew and Mark, would be immediately after verse 2 of ch. XXII.; but from the similarity of the narrative itself to the other two, and the circumstance that Simon is the name of the host (Simon the leper in Matthew and Mark), it seems quite evident that the same event is intended to be related. In John there are nearly six chapters, from chapter XII., 10, to ch. XVIII., inserted between this narrative of the woman's anointing of Jesus, and that of his betrayal by Judas. We remark that to the

most superficial reader of the Gospels there must appear great confusion in the disposition of the narratives. These narratives which we are now reviewing with respect to the woman's anointing of Jesus complement each other; for according to Matthew and Mark the woman pours the ointment on his head, but according to Luke and John it is his feet that she anoints. According to Matthew his disciples were indignant that such a waste of oil should have been made; "which might have been sold for much, and (the proceeds) given to the poor." According to Mark there were some that were indignant; "for the oil might have been sold for more than three hundred pence and given to the poor." And according to John it was Judas Iscariot that was indignant, asking "why was not this ointment sold for three hundred pence, and given to the poor?" And the reason for his saying so is given in verse 6, ch. XII., which, for some cause or none, Christian ministers, when reading the text, are wont to repeat with a strong emphasis. According to Luke there is no such objection made to the use of the oil; but the host, Simon, observing the liberties which his guest allows the woman to take with his person is represented as musing thus *within himself;* "This man, if he were a prophet, would have known who and what manner of woman this is that toucheth him, for she is a sinner," which shows the quasi-omniscience of the writer of the fourth Gospel, as we see throughout his necessary omnipresence; and Christ in response illustrates his meaning by the parable of the creditor and debtor. There are other differences in these narratives which the readers may notice for themselves, but these which we have pointed out are more than sufficient to show that they are not of literal interpretation, and may somehow suggest to the mind that they were intended to be so, setting forth, as they do, an allegoric idea.

The Four Narratives Continued.

Matthew XXVI., 14–35: "Then one of the twelve, called Judas Iscariot, went unto the chief priests and said unto them: What will ye give me, and I will deliver him unto you? And they covenanted with him for thirty pieces of silver. And from that time he sought opportunity to betray him. Now the first day of the feast of unleavened bread, the disciples came to Jesus, saying unto him: Where wilt thou that we prepare for thee to eat the Passover? And he said: Go into the city to such a man, and say unto him: The master saith: My time is at hand; I will keep the Passover at thy house with my disciples. And the disciples did as Jesus had appointed them, and they made ready the Passover. Now when the even was come, he sat down with the twelve; and as they did eat, he said:

Verily, I say unto you that one of you shall betray me. And they were exceeding sorrowful, and began every one of them to say unto him: Lord, is it I? And he answered and said: He that dippeth his hand with me in the dish, the same shall betray me. The son of Man goeth as it is written of him; but woe unto that man by whom the Son of Man is betrayed! It had been good for that man if he had not been born. Then Judas, which betrayed him, answered and said: Master, is it I? He said unto him: Thou hast said.

And as they were eating, Jesus took bread and blessed it, and brake it, and gave it to his disciples, and said: Take, eat; this is my body. And he took the cup, and gave thanks, and gave to them, saying: Drink ye all of it; for this is my blood of the New Testament, which is shed for many, for the remission of sins. But I say unto you: I will not drink henceforth of this fruit of the vine until that day when I drink it new with you in my Father's kingdom. And when they had sung an hymn, they went out into the Mount of Olives. Then saith Jesus unto them: All ye shall be offended because of me this night; for it is written: I will smite the shepherd, and the sheep of the flock shall be scattered abroad. But after I am risen again, I will go before you into Galilee. Peter answered and said unto him: Though all men shall be offended because of thee, yet will I never be offended. Jesus said unto him: Verily, I say unto thee that this night, before the cock crow, thou shalt deny me thrice. Peter said unto him: Lord, though I should die with thee, yet will I not deny thee. Likewise also said all the disciples." *The same acc. to Mark* XIV., 10–32; "And Judas Iscariot, one of the twelve, went unto the chief priests to betray him unto them. And when they heard it, they were glad, and promised to give him money; and he sought how he might conveniently betray him.

And the first day of unleavened bread, when they killed the Passover, his disciples said unto him; Where wilt thou that we go and prepare, that thou mayest eat the Passover? And he sendeth forth two of his disciples, and saith unto them: Go ye into the city and there shall meet you a man bearing a pitcher of water, follow him; and wheresoever he shall go in, say ye to the good-man of the house; The master saith: Where is the guest-chamber, where I shall eat the Passover with my disciples? And he will show you a large upper room furnished and prepared; there make ready for us. And his disciples went forth, and came into the city, and found as he had said unto them; and they made ready the Passover. And in the evening he cometh with the twelve. And as they sat and did eat, Jesus said: Verily, I say unto you, one of you which eateth with me shall betray me. And they began to be sorrowful, and to say unto

him one by one: Is it I? And another said: Is it I? And he answered and said unto them: It is one of the twelve that dippeth with me into the dish. The Son of Man, indeed, goeth as it is written of him, but woe to that man by whom the Son of Man is betrayed; Good were it for that man if he had never been born.

And as they did eat, Jesus took bread and blessed and brake it, and gave to them, and said: Take, eat, this is my body. And he took the cup, and when he had given thanks, he gave it to them, and they all drank of it. And he said unto them: This is my blood of the New Testament, which is shed for many. Verily I say unto you: I will drink no more of the fruit of the vine until that day that I drink it new in the kingdom of God.

And when they had sung an hymn, they went out into the Mount of Olives. And Jesus saith unto them: All ye shall be offended because of me this night; for it is written: I will smite the shepherd, and the sheep shall be scattered. But after that I am risen, I will go before you into Galilee. But Peter said unto him: Although all shall be offended yet will not I? And Jesus saith unto him: Verily, I say unto thee, that this day, in this night, before the cock crow twice, thou shalt deny me thrice. But he spoke the more vehemently: If I should die with thee, I will not deny thee in any wise. Likewise also said they all. *The same according to Luke* XXII., 3–40: "Then entered Satan into Judas, surnamed Iscariot, being of the number of the twelve. And he went his way, and communed with the chief priests and captains, how he might betray him unto them. And they were glad, and covenanted to give him money. And he promised, and sought opportunity to betray him unto them in the absence of the multitude.

Then came the day of unleavened bread, when the Passover must be killed. And he sent Peter and John, saying: Go, and prepare us the Passover, that we may eat. And they said unto him: Where wilt thou that we prepare? And he said: Behold, when ye are entered into the city, there shall a man meet you bearing a pitcher of water; follow him into the house where he entereth in. And ye shall say unto the good-man of the house: The master saith unto thee: Where is the guest-chamber, where I shall eat the Passover with my disciples. And he shall show you a large upper room furnished; there make ready. And they went, and found as he had said unto them; and they made ready the Passover.

And when the hour was come he sat down, and the twelve apostles with him. And he said unto them: I have greatly desired to eat this Passover with you before I suffer; for I say unto you, I will not any more eat thereof until it be fulfilled in the kingdom of God.

And he took the cup, and gave thanks, and said: Take this and divide it among yourselves; for I say unto you, I will not drink of the fruit of the vine until the kingdom of God shall come.

And he took bread, and gave thanks, and brake it, and gave unto them saying: This is my body which is given for you; this do in remembrance of me. Likewise also the cup after the supper, saying: This cup is the New Testament in my blood which is shed for you. But behold the hand of him that betrayeth me is with me on the table. And truly the Son of Man goeth as it is determined, but woe unto that man by whom he is betrayed! And they began to enquire among themselves which of them it was that should do this thing. And there was also a strife among them which of them should be accounted the greatest (a strange time, one would surely think, for such a discourse; see also Mark IX., 34; Luke IX., 46). And he said unto them: The kings of the Gentiles exercise lordship over them; and they that exercise authority upon them are called benefactors. But ye shall not be so; but he that is greatest among you, let him be as the younger, and he that is chief as he that doth serve. For whether is greater, he that sitteth at meat, or he that serveth. Is not he that sitteth at meat? But I am among you as one that serveth. Ye are they which have continued with me in my temptations; and I appoint unto you a kingdom as my father hath appointed unto me: that ye may eat and drink at my table in my kingdom, and sit on thrones, judging the twelve tribes of Israel.

And the Lord said: Simon, Simon, behold Satan hath desired (to have) you that he may sift you as wheat. But I have prayed for thee that thy faith fail not; and when thou art converted strengthen thy brethren. And he said unto him; Lord, I am ready to go with thee both into prison and to death. And he said: I tell thee, Peter, the cock shall not crow this day before that thou shalt thrice deny that thou knowest me. And he said unto them: When I sent you without purse and scrip and shoes, lacked ye anything? And they said: Nothing. Then said he unto them: But now he that hath a purse let him take it, and likewise his scrip; and he that hath no sword, let him sell his garment and buy one. For I say unto you that this that is written must yet be accomplished in me: And he was reckoned among the transgressors, for the things concerning me have an end. And they said: Lord, behold, here are two swords. And he said unto them: It is enough. And he came and went as he was wont to the Mount of Olives, and his disciples also followed him."

The same acc. to John XIII.: "Now before the feast of the Passover, when Jesus knew that his hour was come that he should depart out of this world unto the father, having loved his own which were in the

world he loved them unto the end. And supper being ended, the devil having now put in the heart of Judas Iscariot, Simons' son, to betray him; Jesus knowing that the father had given all things into his hands, and that he was come from God and went (lit, is going) to God; he riseth from supper, and laid aside his garments; and took a towel and girded himself. After that he poured water into a basin, and began to wash the disciples' feet, and to wipe them with the towel wherewith he was girded. Then cometh he to Simon Peter, and he (Peter) saith unto him: Lord, dost thou wash my feet? Jesus answered and said unto him: What I do thou knowest not now; but thou shalt know hereafter. Peter saith unto him; Thou shalt never wash my feet. Jesus answered him: If I wash thee not thou hast no part with me. Simon Peter saith unto him: Lord not my feet only, but also my hands and my head. Jesus saith unto him: He that is washed needeth not save to wash his feet, but is clean every whit; and ye are clean, but not all. For he knew who should betray him; therefore said he: Ye are not all clean. So after he had washed their feet, and had taken his garments and was set down again, he said unto them; Know ye what I have done to you? Ye call me Master, and Lord; and ye say well; for so I am. If then your Lord and Master have washed your feet, ye also ought to wash one another's feet. For I have given you an example that ye should do as I have done to you. Verily, verily, I say unto you, the servant is not greater than his Lord; neither he that is sent greater than he that sent him. If ye know these things happy are ye if ye do them. I speak not of you all; I know whom I have chosen; but that the Scripture may be fulfilled: He that eateth bread with me hath lifted up his heel against me. Now I tell you before it come that when it is come to pass ye may believe that I am *he*. Verily, verily, I say unto you: He that receiveth whomsoever I send receiveth me; and he that receiveth me receiveth him that sent me. When Jesus had thus said he was troubled in spirit, and testified and said: Verily, verily, I say unto you that one of you shall betray me. Then the disciples looked one on another, doubting of whom he spake. Now there was leaning on Jesus' bosom one of his disciples whom Jesus loved. Simon Peter, therefore, beckoned unto him that he should ask who it should be of whom he spake. He then, leaning on Jesus' breast, saith unto him: Lord who is it? Jesus answered: He it is to whom I shall give a sop when I have dipped it. And when he had dipped the sop he gave it to Judas Iscariot, the son of Simon. And after the sop Satan entered into him. Then said Jesus unto him: That thou doest do quickly. Now no man at the table knew for what intent he spake this unto him; for some of

them thought because Judas had the bag that Jesus had said unto him: Buy those things that we have need of against the feast, or that he should give something to the poor. He then, having received the sop, went immediately out; and it was night. Therefore when he was gone out Jesus said: Now is the son of man glorified, and God is glorified in him. If God be glorified in him God shall also glorify him in himself, and shall straightway glorify him. Little children yet a little while I am with you. Ye shall seek me; and as I said unto the Jews: Whither I go ye cannot come, so now I say to you: A new commandment I give unto you, that ye love one another; as I have loved you that ye also love one another. By this shall men know that ye are my disciples, if ye have love one to another. Simon Peter said unto him; Lord, whither goest thou? Jesus answered him: Whither I go thou canst not follow me now, but thou shalt follow me afterwards. Peter said unto him: Lord, why cannot I follow thee now? I will lay down my life for thy sake. Jesus answered him: Wilt thou lay down thy life for my sake? Verily, verily, I say unto thee: The cock shall not crow till thou hast denied me thrice."

Remarks on the Preceding.

According to Matthew XXVI., 15, Judas goes to the chief priests and asks them thus: "What will ye give me and I will deliver him unto you?" Now the question at once suggests itself to the candid enquirer: How did Matthew, or whoever wrote the first Gospel, know what particular expression Judas made use of when bargaining with the priests; and yet here the precise words which Judas spake on that occasion are affected to be given. Then, according to Matthew; "They covenanted with him for thirty pieces of silver." According to Mark and Luke: "They were glad, and agreed to give him money." In John nothing is said as to the reward which Judas was to receive for his services. As to the preparation for the Passover by Jesus and his disciples: According to Matthew, the disciples come to Jesus, saying unto him: "Where wilt thou that we prepare to eat the Passover?" According to Mark they say: "Where wilt thou that we go and prepare, that thou mayest eat the Passover?" In Luke, this question of the disciples to Christ is not mentioned; and in John no mention is made at all of this preparation. According to Matthew, Jesus says, in answer to the question of the disciples: "Go into the city to such a man, and say unto him: The Master saith: My time is at hand; I will keep the Passover at thy house with my disciples." But, according to Mark, he sends two of

his disciples, and says unto them: "Go ye into the city, and there shall meet you a man bearing a pitcher of water; follow him, and wheresoever he shall go in, say ye to the good-man of the house: The Master saith: Where is the guest-chamber, where I shall eat the Passover with my disciples?" "And he will show you a large upper room, furnished and prepared; there make ready for us." In Luke, we first find him, with respect to this Passover, sending Peter and John, and saying unto them: "Go, and prepare us the Passover, that we may eat." And they said unto him: "Where wilt thou that we prepare?" And he said to them: "Behold, when ye are entered into the city there shall a man meet you bearing a pitcher of water: follow him into the house where he entereth. And ye shall say unto the good-man of the house: The Master saith unto thee: Where is the guest-chamber, where I shall eat the Passover with my disciples? And he shall show you a large upper room, furnished; there make ready." The wording in these three representations with respect to the disciples is different, and being in the direct oration, we cannot tell which to select as the original representation, and cannot conclude any one of them as literally significant, but may, as in the other connections, seek the allegoric meaning. Also, the representation is different otherwise in Mark and Luke from what it is in Matthew, in which latter no mention is made of the two disciples, of the man bearing the pitcher of water, the furnished upper room, &c. In Matthew, Mark and Luke, the twelve apostles are represented as being present with Jesus at the last supper. In John, this is not mentioned, but the representation, if it were real, might be thought to imply their presence.

All the representations of the scene at the supper differ widely from each other. They differ with respect to the expressions they represent Christ to have used; with respect to the order of the events; and with respect to the events themselves. According to Matthew, as they did eat he said: "Verily I say unto you that one of you shall betray me." According to Mark it is: "Verily I say unto you, one of you which eateth with me shall betray me." According to John, after he forewarns them of the traitor from a prophecy of Scripture (verses 18, 19) he goes on to say: "Verily, verily, I say unto you that one of you shall betray me." In Luke there is no corresponding expression, for, according to Luke's narrative, the one who should betray him is not spoken of by Jesus at the table until after he has distributed the bread and wine, although in the other three narratives he is represented as speaking of him before this distribution. Then in answer to the anxious questioning of the

disciples as to who the traitor should be he says, according to Matthew: "He that dippeth his hand with me in the dish, the same shall betray me." The Son of Man goeth as it is written of him; but woe unto that man by whom the Son of Man is betrayed; it had been good for that man if he had not been born. (But notice what follows in connection): "And Judas, which betrayed him answered, and said: Master, is it I? He said unto him; Thou hast said." According to Mark, in answer to this question, he says: "It is one of the twelve that dippeth with me in the dish. The Son of Man goeth, as it is written of him; but woe to that man by whom the Son is betrayed. Good were it for that man if he had never been born." According to John the disciples do not, in their anxious curiosity, ask each for himself: Is it I? But they have recourse to another expedient, to find out who the traitor should be; and this expedient might be called in modern phraseology, "Favoritism." John's narrative goes on to say: "Then the disciples looked one on another, doubting of whom he spake. Now there was leaning on Jesus' bosom, one of the disciples whom Jesus loved. Simon Peter therefore beckoned to him that he should ask who it should be of whom he spake. He, then, lying on Jesus' breast, saith unto him: Lord who is it? Jesus answered; He it is to whom I shall give a sop when I have dipped it. And when he had dipped the sop, he gave it to Judas Iscariot the son of Simon. After the sop, Satan entered into him. Then said Jesus unto him: That thou doest, do quickly. Now no man at the table knew for what intent he spake this unto him," (although in Matthew XXVI., 25, he is represented as answering Judas himself directly that he should be the traitor, and this before the distribution of the bread and wine,) "for some of them thought because Judas had the bag, that Jesus had said unto him: Buy those things that we have need of against the feast; or that he should give something to the poor. He then, having received the sop, went immediately out; and it was night." According to Luke, Jesus, while at the table, first speaks of Judas after the distribution of the bread and wine. When the cup is represented as just distributed; and in connection with that event, it goes on to say; "But, behold, the hand of him that betrayeth me, is with me on the table. And truly the Son of Man goeth as it was determined; but woe unto that man by whom he is betrayed. And they began to enquire among themselves which of them it was that should do this thing." "And," it says in connection "there was also a strife among them, which of them should be accounted the greatest." One would think naturally that their sorrow must have soon changed into self-confidence and pride! The foregoing is all we find about Judas at the table; we do

not meet with him again till we find him in the garden betraying Jesus. Anyone can see how different these representations, with respect to Judas, while at the table, are. According to Matthew, Christ answers the question of Judas himself, before the distribution of the bread and wine, that he should be the traitor, or; "Thou hast said," which is explained by the Bible interpreters as meaning the same thing, an affirmative answer, but which certainly is, to say the least, equivocal. According to Mark he gives them only the indefinite answer: "It is one of the twelve that dippeth with me in the dish," and this before the distribution of the bread and wine. According to Luke he only intimates the presence of the traitor among the twelve at the table, by saying: "But, behold, the hand of him that betrayeth me, is with me on the table, &c.," and this after the distribution of the bread and wine; and then they begin to strive among themselves as to who shall be the greatest. And according to John, there is quite a wide-spread sensation among the disciples at the table during the supper, as to who should be the traitor; and quite a peculiar method is taken also to discover him. John's account of Judas at the supper-table is, like all the rest of his representations, peculiar—altogether unique. Moreover, as to the words Jesus is represented as making use of on presenting the bread and wine to his disciples, they are as follows. According to Matthew, on presenting the bread, he says: "Take, eat; this is my body." And on presenting the cup he is made to say: "Drink ye all of it; for this is my blood of the New Testament, which is shed for many, for the remission of sins. But I say unto you: I will not drink henceforth of this fruit of the vine, until that day when I drink it new with you in my Father's kingdom." According to Mark, on presenting the bread, he says: "Take, eat; this is my body;" some early manuscripts leaving out φάγετε the Greek word, translated "eat," in this place in the text. And, on presenting the cup, he is made to say: This is my blood of the New Testament, which is shed for many. Verily, I say unto you: I will drink no more of the fruit of the vine until that day that I drink it new in the Kingdom of God." According to Luke, on presenting the bread, he says: "This is my body, which is given for you: this do in remembrance of me." And, on presenting the cup, he is made to say: "This cup is the New Testament in my blood, which is shed for you." In John this operation of presenting the bread and wine is not at all represented; only that of giving to Judas his sop. These are all different expressions in the *direct oration:* and if the reader will turn to I. Corinthians, XI. 24–27, he will find an expression different from all these relating to the same thing, and purporting to be the original. Now,

which of all these are the original expressions uttered by Christ, we are unable to determine, and have, therefore, to set them all down as allegoric representations. Moreover, as to the discourse at the table respecting Peter's future denial of Christ, all the narratives differ from each other. According to Matthew, Peter answers and says to him: "Though all men shall be offended because of thee, yet will I never be offended." Jesus said to him: "Verily, I say unto thee, that this night before the cock crow, thou shalt deny me thrice." Peter said to him: "Though I should die with thee, yet will I not deny thee." Likewise also said all the disciples. According to Mark, Peter said to him: "Although all shall be offended, yet will not I." And Jesus says to him: "Verily, I say unto thee, that this day, in this night, before the cock crow twice, thou shall deny me thrice." But he spake the more vehemently: "If I should die with thee, I will not deny thee in any wise." Likewise also said they all. According to Luke the representation of the denial of Peter has a still different phase; it is: "And the Lord said: Simon, Simon, behold Satan hath desired to have you, that he may sift you as wheat; but I have prayed for thee that thy faith fail not; and when thou art converted, strengthen thy brethren." And he saith to him: Lord, I am ready to go with thee, both into prison and to death. And Jesus replies: "I tell thee, Peter, the cock shall not crow this day before that thou shalt thrice deny that thou knowest me." And following this, in connection, he advises them to sell their garments, if necessary, to buy swords. It is still different in John's; Simon Peter said to him: "Lord, whither goest thou?" Jesus answered him: "Whither I go thou canst not follow me now, but thou shalt follow me afterwards." Peter said to him: "Lord, why cannot I follow thee now. I will lay down my life for thy sake." Jesus answers him: "Wilt thou lay down thy life for my sake? Verily, verily, I say unto thee, the cock shall not crow till thou hast denied me thrice." Now all these representations of the conversation respecting the future denial of Christ by Peter, are different from each other in the *direct oration*, and which of them is the true and original one we cannot determine, and therefore have to decide them all as historically unapt, or rather as allegorical.

The Four Narratives continued till His Delivery to Pilate.

Acc. to Matt. XXVI. 35, to end of chapter: "Then cometh Jesus with them unto a place called Gethsemane, and saith unto the disciples: Sit ye here, while I go and pray yonder. And he took with

him Peter and the two sons of Zebedee, and began to be sorrowful and very heavy. Then saith he unto them: My soul is exceeding sorrowful, even unto death; tarry ye here and watch with me. And he went a little farther, and fell on his face and prayed, saying: O my Father, if it be possible, let this cup pass from me; nevertheless, not as I will, but as Thou wilt. And he cometh unto the disciples and findeth them asleep, and saith unto Peter: What, could ye not watch with me one hour? Watch and pray, that ye enter not into temptation; the spirit indeed is willing, but the flesh is weak. He went away again the second time and prayed, saying: O my Father, if this cup may not pass from me, except I drink it, Thy will be done. And he came and found them asleep again, for their eyes were heavy. And he left them, and went away again and prayed the third time, saying the same words. Then cometh he to his disciples, and saith unto them: Sleep on now, and take rest; behold, the hour is at hand, and the Son of Man is betrayed into the hands of sinners. Rise, let us be going; behold, he is at hand that doth betray me. And while he yet spake, lo, Judas, one of the twelve, came, and with him a great multitude with swords and staves from the chief priests and elders of the people. Now he that betrayed him gave them a sign, saying: Whomsoever I shall kiss that same is he; hold him fast. And forthwith he came to Jesus, and said: Hail Master, and kissed him. And Jesus said unto him: Friend, wherefore art thou come? Then came they and laid hands on Jesus, and took him. And, behold, one of them which were with Jesus stretched out his hand and drew his sword, and struck a servant of the high priest's, and cut off his ear. Then said Jesus unto him: Put up again thy sword into his place; for all they that take the sword shall perish with the sword. Thinkest thou that I cannot now pray to my Father, and He shall presently give me more than twelve legions of angels. But how then shall the Scriptures be fulfilled, that thus it must be? In that same hour said Jesus to the multitudes: Are ye come out as against a thief, with swords and staves, for to take me? I sat daily with you, teaching in the temple, and ye laid no hold on me. But all this was done that the Scriptures of the prophets might be fulfilled. Then all the disciples forsook him and fled. And they that laid hold on Jesus led him away to Caiaphas the high priest, where the scribes and the elders were assembled. But Peter followed him afar off unto the high priest's palace, and went in and sat with the servants to see the end. Now the chief priests and the elders, and all the council, sought false witness against Jesus, to put him to death; but found none. Yea, though many false witnesses came, yet found they none. At the last

came two false witnesses and said: This fellow said: I am able to destroy the temple of God, and to build it in three days. And the high priest arose and said unto him: Answerest thou nothing? What is it which these witness against thee? But Jesus held his peace. And the high priest answered and said unto him: I adjure thee by the living God that thou tell us whether thou be the Christ, the son of God. Jesus saith unto him: Thou hast said: nevertheless, I say unto you: Hereafter shall ye see the Son of Man sitting on the right hand of power, and coming in the clouds of heaven. Then the high priest rent his clothes, saying: He hath spoken blasphemy; What further need have we to witness? Behold now ye have heard his blasphemy. What think ye? They answered and said: He is guilty (liable to the penalty) of death. Then did they spit on his face and buffeted him; and others smote him with the palms of their hands, saying: Prophesy unto us, O Christ, who is he that smote thee? Now Peter sat without in the palace: and a damsel came unto him, saying: Thou also wast with Jesus of Nazareth. But he denied before them all, saying: I know not what thou sayest. And when he was gone out into the porch another maid saw him, and said unto them that were there: This fellow was also with Jesus of Nazareth. And again he denied with an oath: I do not know the man. And after a while came unto him they that stood by, and said to Peter: Surely thou also art one of them; for thy speech bewrayeth thee. Then began he to curse and to swear (saying), I do not know the man; and immediately the cock crew. And Peter remembered the word of Jesus which said unto him: Before the cock crow thou shalt deny me thrice. And he went out and wept bitterly." *The same acc. to Mark* XIV. 32 to end of chapter: "And they came to a place which was named Gethsemane; and he saith to his disciples: Sit ye here while I shall pray. And he taketh with him Peter and James and John, and began to be sore amazed and to be very heavy; and saith unto them: My soul is exceeding sorrowful unto death; tarry ye here and watch. And he went forward a little, and fell on the ground, and prayed that if it were possible the hour might pass from him. And he said: Abba, Father, all things are possible unto Thee, take away this cup from me; nevertheless not what I will, but what Thou wilt. And he cometh and findeth them sleeping, and saith unto Peter: Simon, sleepest thou? Couldest not thou watch one hour? Watch and pray, lest ye enter into temptation. The spirit truly is ready but the flesh is weak. And again he went away, and prayed, and spake the same words. And when he returned he found them asleep again, (for their eyes were heavy) neither knew they what to answer him. And he cometh the third time and

saith unto them: Sleep on now, and take rest; it is enough; the hour is come; behold the Son of Man is betrayed into the hands of sinners. Rise, let us go; lo, he that betrayeth me is at hand. And immediately, while he yet spake, cometh Judas, one of the twelve, and with him a great multitude with swords and staves, from the chief priests and the scribes and the elders. And he that betrayed him had just given them a token saying: Whomsoever I shall kiss, that same is he; take him and lead him away safely. And as soon as he was come he goeth straightway to him and said: Master, master, and kissed him. And they laid their hands on him, and took him. And one of them that stood by drew a sword, and smote a servant of the high priest, and cut off his ear. And Jesus answered and saith unto them: Are ye come out as against a thief with swords and with staves to take me? I was daily with you in the temple, and ye took me not; but the Scriptures must be fulfilled. And they all forsook him and fled. And there followed him a certain young man having a linen cloth cast about his naked body; and the young men laid hold on him. And he left the linen cloth, and fled from them naked."

"And they led Jesus away to the high priest, and with him were assembled all the chief priests, and the elders, and the scribes. And Peter followed him afar off, even into the palace of the high priest; and he sat with the servants, and warmed himself at the fire. And the chief priests and all the council sought for witness against Jesus to put him to death; and found none. For many bare false witness against him, but their witness agreed not together. And there arose certain, and bare false witness against him, saying: We have heard him say: I will destroy this temple that is made with hands, and within three days I will build another made without hands. But neither so did their witness agree together. And the high priest stood up in the midst and asked Jesus, saying: Answerest thou nothing? What is it which these witness against thee? But he held his peace, and answered nothing. Again the high priest asked him, and said unto him: Art thou the Christ, the Son of the Blessed? And Jesus said: I am; and ye shall see the Son of Man sitting on the right hand of power, and coming in the clouds of heaven. Then the high priest rent his clothes, and saith: What need we any further witness? Ye have heard the blasphemy: what think ye? And they all condemned him to be guilty (liable to the penalty) of death. And some began to spit on him, and to cover his face, and to buffet him, and to say unto him: Prophesy. And the servants did strike him with the palms of their hands. And as Peter was beneath in the palace there cometh one of the maids of the high priest; and when

she saw Peter warming himself she looked upon him, and said: And thou also wast with Jesus of Nazareth. But he denied, saying: I know not, neither understand I what thou sayest. And he went out into the porch, and the cock crew. And a maid saw him again, and began to say to them that stood by: This is one of them. And he denied it again. And a little after they that stood by said again to Peter: Surely thou art one of them; for thou art a Galilean, and thy speech agreeth thereto. And he began to curse and to swear, saying: I know not this man of whom ye speak. And the second time the cock crew. And Peter called to mind the word that Jesus said unto him: Before the cock crow twice thou shalt deny me thrice; and when he thought thereon he wept." *The same acc. to Luke* XXII, v. 40 to end of chapter: "And when he was at the place he said unto them: Pray that ye enter not into temptation. And he was withdrawn from them about a stone's cast, and kneeled down and prayed, saying: Father, if thou be willing remove this cup from me; nevertheless not my will but Thine be done. And there appeared an angel unto him from heaven, strengthening him. And being in an agony he prayed more earnestly; and his sweat was as it were great drops of blood falling down to the ground. And when he was rose up from prayer, and was come to his disciples, he found them sleeping for sorrow, and said unto them: Why sleep ye? Arise and pray, lest ye enter into temptation. And while he yet spake, behold, a multitude, and he that was called Judas, one of the twelve, went before them, and drew near unto Jesus to kiss him. But Jesus said unto him; Judas, betrayest thou the Son of Man with a kiss? When they that were about him saw what would follow they said unto him: Lord, shall we smite with the sword? And one of them smote the servant of the high priest, and cut off his right ear. And Jesus answered and said: Suffer ye thus far; and he touched his ear, and healed him. Then Jesus said unto the chief priests and captains of the temple, and the elders which were come to him: Are ye come out as against a thief with swords and staves? When I was daily with you in the temple ye stretched forth no hands against me; but this is your hour and the power of darkness. Then took they him, and led him, and brought him into the high priest's house. And Peter followed afar off. And when they had kindled a fire in the midst of the hall, and were set down together, Peter sat down among them. But a certain maid beheld him as he sat by the fire, and earnestly looked upon him, and said: This man was also with him. And he denied him saying: Woman, I know him not. And after a little while another saw him and said: Thou art also of them. And Peter said: Man, I am not. And about the space of

one hour after another confidently affirmed, saying: Of a truth this fellow also was with him; for he is a Galilean. And Peter said: Man, I know not what thou sayest. And immediately, while he yet spake, the cock crew. And the Lord turned and looked upon Peter; and Peter remembered the word of the Lord, how he had said unto him: Before the cock crow thou shalt deny me thrice. And Peter went out and wept bitterly.

And the men that held Jesus mocked him and smote him. And when they had blindfolded him, they struck him on the face, and asked him, saying: Prophesy, who is it that smote thee? And many other things blasphemously spake they against him. And as soon as it was day, the elders of the people and the chief priests and the scribes came together and led him into their council, saying: Art thou the Christ? Tell us. And he said unto them: If I tell you ye will not believe. And if I also ask you, ye will not answer me, nor let me go. Hereafter shall the Son of Man sit on the right hand of the power of God. Then said they all: Art thou the Son of God? And he said unto them: Ye say that I am. And they said: What need we any further witnesses? for we ourselves have heard of his own mouth." *The same acc. to John*, XVIII to verse 28: "When Jesus had spoken these words, he went forth with his disciples over the brook Cedron, where was a garden, into the which he entered, and his disciples. And Judas also, which betrayed him, knew the place: for Jesus ofttimes resorted thither with his disciples. Judas then, having received a band of men and officers from the chief priests and Pharisees, cometh thither with lanterns and torches and weapons. Jesus, therefore, knowing all things that should come upon him, went forth and said unto them: Whom seek ye? They answered him: Jesus of Nazareth. Jesus saith unto them: I am he. And Judas also which betrayed him, stood with them. As soon then as he had said unto them, I am he, they went backward and fell to the ground. Then asked he them again, Whom seek ye? And they said, Jesus of Nazareth. Jesus answered: I have told you that I am he; if, therefore, ye seek me, let these go their way; that the saying might be fulfilled, which he spake: Of them which thou gavest me, have I lost none. Then Simon Peter, having a sword, drew it, and smote the high priest's servant, and cut off his right ear. The servant's name was Malchus. Then said Jesus unto Peter: Put up thy sword into the sheath; the cup which my Father hath given me shall I not drink it? Then the band and the captains and the officers of the Jews took Jesus and bound him; and led him away to Annas first; for he was father-in-law to Caiaphas, who was the high priest that same year. Now Caiaphas was

he who gave counsel to the Jews that it was expedient that one man should die for the people.

And Simon Peter followed Jesus, and so did another disciple; that disciple was known unto the high priest, and went in with Jesus into the palace of the high priest. But Peter stood at the door without. Then went out that other disciple which was known unto the high priest, and spake unto her that kept the door, and brought in Peter. Then saith the damsel that kept the door unto Peter: Art thou also one of this man's disciples? He saith: I am not. And the servants and officers stood there, who had made a fire of coals; for it was cold; and they warmed themselves; and Peter stood with them and warmed himself.

The high priest then asked Jesus of his disciples and of his doctrine. Jesus answered him: I spake openly to the world; I ever taught in the synagogue, and in the temple, whither the Jews always resort; and in secret have I said nothing; why askest thou me? Ask them which heard me what I have said unto them; behold, they know what I said. And when he had thus spoken, one of the officers who stood by struck Jesus with the palm of his hand, saying: Answerest thou the high priest so? Jesus answered him: If I have spoken evil, bear witness of the evil; but if well, why smitest thou me? Now Annas had sent him bound unto Caiaphas the high priest. And Simon Peter stood and warmed himself. They said therefore unto him: Art not thou also one of his disciples? He denied it, and said: I am not. One of the servants of the high priest, being his kinsman, whose ear Peter cut off, saith: Did not I see thee in the garden with him? Peter then denied again, and immediately the cock crew."

Remarks on the Preceding.

The careful reader will readily perceive, even without any critical comparison of them by us, how very different these narratives are as to every point. We, however, in order to render these points of difference in these narratives more clear and comprehensible, will give a slight critical review of them, First, the praying in the garden of Gethsemane is mentioned in three Gospels, Matthew, Mark and Luke. These three differ, first in this, that Matthew and Mark speak of his going three times to pray after his entrance on this occasion into the garden, and each time returning to his disciples whom he invariably on his return from prayer, according to the three narratives, finds sleeping. And, secondly, they differ as to the words they represent Christ as using in his prayer, which, strange as it must appear, are represented in the *oratio directa*, although the three disciples whom he brought into the garden with him were removed to

some distance from him, (a stone's cast) and asleep each time when he was praying; and as to the words he speaks to his disciples on his returns from prayer. Though Luke speaks of his going to pray only once, yet he gives us a near inspection of him--just as if the writer were present with him—and represents him in an agony, having great drops of sweat, as blood, falling down to the ground, and an angel from heaven strengthening him. According to Matthew, having taken three of his disciples, Peter, James, and John, into the garden with him, he leaves them at a certain place, and goes a little further, and falls on his face, and prays, saying: "O my Father, if it be possible, let this cup pass from me; nevertheless not as I will, but as Thou wilt."

And he comes to the disciples, and finding them asleep, says to Peter: "What, could ye not watch with me one hour? Watch and pray, that ye enter not into temptation; the spirit indeed is willing, but the flesh is weak." He went again the second time, and prayed, saying: "O my Father, if this cup may not pass from me except I drink it, Thy will be done." And he came and found them asleep again, for their eyes were heavy. And he left them and went away again and prayed the third time, saying "the same words." Then he comes to his disciples and says to them: "Sleep on now, and take your rest; behold the hour is at hand and the Son of Man is betrayed into the hands of sinners. Rise and let us be going: behold, he is at hand that doth betray me." According to Mark, he takes with him into the garden Peter, James, and John, and requests them to tarry and watch with him, while he goes forward a little and prays that if it be possible the hour shall pass from him. "And he said: Abba, Father, all things are possible unto thee; take away this cup from me; nevertheless not what I will, but what Thou wilt." And he comes and finds them sleeping, and says to Peter: "Simon, sleepest thou? Couldest not thou watch one hour? Watch ye and pray, lest ye enter into temptation. The spirit truly is ready, but the flesh is weak." And again he went away and prayed, "and spake the same words." And when he returned the second time, he found them asleep again, (for their eyes were heavy), "neither knew they what to answer him." And he comes the third time, and says to them: "Sleep on now, and take rest; it is enough, the hour is come; behold, the Son of Man is betrayed into the hands of sinners. Rise up, let us go; lo, he that betrayeth me is at hand." According to Luke, having entered into the garden with his disciples, he admonishes them to pray that they enter not into temptation; and withdrawing from them about a stone's cast, he kneels down and prays; saying; "Father, if Thou be willing, remove this cup from me;

nevertheless not my will, but Thine be done." And when he rises from prayer (after having in his agony sweat great drops of blood, and experienced the strengthening powers of the angel), he comes to his disciples and finds them sleeping for sorrow, and says to them: "Why sleep ye? Rise and pray, lest ye enter into temptation." Thus, the prayer in the garden is as follows, according to the different narratives. According to Matthew it is: "O my Father, if it be possible, let this cup pass from me; nevertheless not as I will but as thou wilt." And the second time: "O my Father, if this cup may not pass away from me except I drink it, Thy will be done;" the third time saying "the same words." According to Mark it is: "Abba, Father, all things are possible unto Thee; take away this cup from me; nevertheless, not what I will but what thou wilt." He prays the second time in "the same words;" the third time it is not said what were the words he used. According to St. Luke it is: "Father, if Thou be willing, remove this cup from me; nevertheless, not my will but thine be done." The difference between these prayers is then as the difference between the expressions—"If it be possible;" —"All things are possible;"—"If thou be willing." Which of these prayers then represents truly the words which Christ made use of? Or does either one of them? Or how could the words he made use of be known to any other man than himself, as it is said that he was alone, the three disciples, Peter, James and John, being removed about a stone's cast from him, and sleeping? Any candid reader will be apt to suspect that these representations are not intended to have a literal interpretation. In John's Gospel this prayer in the garden is not mentioned; and the question will naturally suggest itself to the reader: how does this happen if John, the ascribed writer, was one of the particular three that were with Jesus on that occasion, as according to Matthew and Mark?

The betrayal by Judas, and the arrest of Jesus are mentioned in the four Gospels, but the particulars of that transaction are very differently given, In all four Judas is represented as being present at the arrest, leading the band of men that perform that act. In Matthew, Mark, and Luke, Judas is represented as betraying Christ by a kiss; in John nothing is said about him kissing Jesus, but quite a different representation is given of the manner of the arrest. Acc. to Matthew this was: "And forthwith he came to Jesus and said: Hail, master; and kissed him. And Jesus said unto him: Friend, wherefore art thou come? Then came they and laid hands on Jesus and took him." Acc. to Mark: "And as soon as he (Judas) was come he goeth straightway to him, and saith: Master, Master, and kissed him. And they laid their hands on him and took him." Acc.

to Luke; Judas going before the band of men "went near unto Jesus to kiss him. But Jesus said unto him: "Judas, betrayest thou the Son of Man with a kiss?" Then they that were about Jesus, seeing what would follow, say to him: "Lord, shall we smite with the sword?" And one of them forthwith smites oft the right ear of the high priest's servant; and Jesus touches and heals the ear. Then Jesus said unto the chief priests and captains of the temple, and the elders which were come to him, &c." So that they who are in the other narratives represented as a band of men and officers from the chief priests and rulers and captains of the temple are here represented as these high functionaries themselves come to arrest Jesus. Acc. to John it was: "Judas then, having received a band of men and officers from the chief priests and Pharisees, cometh thither with lanterns and torches and weapons. Jesus therefore, knowing all things that should come upon him, went forth and said unto them: Whom seek ye? They answered him: Jesus of Nazareth. Jesus saith unto them: I am he. And Judas also which betrayed him stood with them. As soon then as he had said unto them: I am he, they went backward and fell to the ground. Then asked he them again: Whom seek ye? And they said: Jesus of Nazareth. I have told you that I am (he); if therefore ye seek me let these (the disciples) go their way." Then the writer of this Gospel, with his usual particularity, mentions Peter as the one that smites off the ear of the high priest's servant; and that the servant's name was Malchus. Jesus tells Peter to put up his sword again, upon which they arrest him. It would seem from this representation that the services of Judas were dispensed with,—no kissing is mentioned here,—Jesus having the courage and manliness to step forward and identify himself to his enemies, upon which they go backward and fall to the ground. These are circumstances of the betrayal altogether different from any which we have had in the others.

It is seen then that the words which passed between the traitor and Jesus in the transaction of betraying are represented in the different Gospels as different. "Hail, master," as acc. to Matthew, is not the same expression as "Master, master," acc. to Mark. And after kissing, the expression: "Friend, wherefore art thou come," as acc. to Matthew, is not the same as "Judas, betrayest thou the Son Man with a kiss?" as acc. to Luke. In order for these four narratives to have a literal signification, all the scenes and circumstances of them which were common to them all would require to be the same, whether they were related in the *oratio obliqua* or the *oratio directa;* and all expressions in the four narratives related in the *oratio directa*, and designed to convey the same ideas, *should have necessarily to be*

in precisely the same words, placed exactly alike in the corresponding sentences.

As to where they take Jesus after they arrest him. Acc. to Matthew, when they arrest Jesus they lead him away to the house of Caiaphas, the high priest. Acc. to John, they lead him to the house of Annas, the father-in-law of Caiaphas. Acc. to Mark and Luke, they lead him to the high priest's house. In Mark alone it is mentioned that on Jesus being led away after his arrest there followed him a certain young man, having a linen cloth thrown about his naked body; and that the young men laid hold on him, and he left the linen cloth, and fled from them naked. Curious indeed have been the speculations of fathers and ecclesiastics, monks and friars of the Christian Church as to who this young man might have been; and as a symbol of the allegory we shall leave men yet to occupy themselves with him.

From his arraignment before the high priest till his delivery to Pilate.

The four narratives represent Peter, and one of them (John's) another disciple also, as going to the house of the high priest, that of Annas, acc. to John; that of Caiaphas, acc. to Matthew, and that of the high priest acc. to Mark, and Luke. In his examination before the high priest acc. to Matthew and Mark, the chief priests and elders, and all the council sought false witness against Jesus to put him to death; and although many presented themselves, their evidence did not agree so as to prove him guilty. But at last, acc. to Matthew, "two" false witnesses came and testified: "This fellow said: I am able to destroy the temple of God and to build it in three days." And acc. to Mark "certain" came and testified: "We heard him say: I will destroy this temple that is made with hands, and within three days I will build another made without hands." In Luke and John nothing is said as to false witnesses testifying against him, but the high priest examines Jesus without referring to witnesses. Acc. to Matthew, the high priest, referring to what the two false witnesses had testified, said to Jesus: "Answerest thou nothing? What is it which these witness against thee?" And Jesus remaining silent, the high priest again says to him: "I adjure thee by the living God that thou tell us whether thou be the Christ, the Son of God." Jesus answers him: "Thou hast said; nevertheless I say unto you: Hereafter shall ye see the Son of Man sitting on the right hand of power, and coming in the clouds of heaven." Acc. to Mark, the high priest, in reference to what the false witness had testified, asked Jesus: "An

swerest thou nothing? What is it which these witness against thee?" But Jesus remaining silent the high priest again asks him: "Art thou the Christ, the Son of the Blessed? And Jesus said: I am; and ye shall see the Son of Man sitting on the right hand of power, and coming in the clouds of heaven." These expressions, which were most likely meant for the same original, are, it is seen, considerably different in the wording.

These examinations of Jesus before the high priest represented in Matthew and Mark, one would think from the narratives, to have taken place during the night; but Luke does not represent this examination as taking place till after daylight had come, ch. XXII, 66. And acc. to this last it is the elders of the people and the chief priests and scribes, not the high priest alone, as in the others, that put the question to Jesus, saying: "Art thou the Christ, tell us." And he answered them: "If I tell you ye will not believe. And if I ask you ye will not answer me, nor let me go. Hereafter shall the Son of Man sit on the right hand of the power of God." Then said they all: "Art thou then the Son of God." And he said unto them: "Ye say that I am." And they said: "What need we any further witnesses? For we ourselves have heard of his own mouth."

The reader will perceive that the answers Christ is represented as making to these questions, as to whether he is the Christ, are different in all the narratives. To this question in Matthew, he answers the high priest: "Thou hast said, &c." In Mark he answers: "I am, &c," and in Luke: "Ye say that I am, &c." Acc. to John: "The high priest (here Annas) asked Jesus of his disciples and of his doctrine." Jesus answered him and says: "I spake openly to the world; I ever taught in the synagogue and in the temple, whither the Jews always resort, and in secret have I said nothing. Why askest thou me? Ask them which heard me what I have said unto them; behold, they know what I said." Upon this, one of the officers standing by strikes Jesus with the palm of his hand, saying: "Answerest thou the high priest so?" Jesus answers him: If I have spoken evil bear witness of the evil; but if well why smitest thou me?" Now Annas sent, not had sent as translated, (Gr. Aorist ἀπέστειλεν) him bound to Caiaphas the high priest, representing surely the examination which takes place in the preceding verses in this narrative to be before Annas. And, here, in John, though he is brought before Caiaphas there is no examination of him represented as taking place there. Thus, we see that the questions which are put to Jesus while on his trial by the high priest or council, and the answers which he returns to them, are represented as different in the four narratives, no two of the narratives agreeing with each other, although all claim-

ing to set forth the original questions and answers. No two of them agree as to the maltreatment which Christ received. The two that represent the false witnesses as testifying against him do not agree respecting them or what they testify. We see that the two that, with an exhibition of apparent reason, are regarded as the principal narrators, namely Matthew and John, differ as to the place to which Jesus was brought when arrested, as well as to many other things.

With respect to Peter's denial of Christ, while the latter was on trial; in Matthew and Mark, Peter is represented as interrogated by, and returning answer to a female, in his two first denials of Jesus; and as, in the third instance, answering the interrogations of those that stood by; all the questions and answers being considerably different in detail. In Luke and John he is represented as, in his first denial, answering the interrogation of a female; in the second, acc. to Luke, that of a man; acc. to John, that of those standing around; and in the third. acc. to both, that of a man; John particularizing him to be the servant of the high priest, whose ear Peter had cut off; so that the old enemies were face to face; but whether their recognition of each other was distinct or not, we are not told.

Here, acc. to John, Peter gains admittance to the house of the high priest, whereinto they had taken Jesus, through the good offices of that other disciple, who, (acc. to John alone) accompanied Peter with Jesus to the high priest's house, and who was acquainted with the high priest. This disciple "went in with Jesus to the palace of the high priest; but Peter stood at the door without. Then went out that other disciple, which was known unto the high priest, (here Annas) and spake unto her that kept the door, and brought in Peter." This is not mentioned in any of the others, and it recalls to our mind the way in which, acc. to John also, Peter obtained the information as to who the traitor should be, from the disciple reclining on Jesus' breast at supper. No doubt the representation means to refer to the same disciple, who, indeed, must have been quite an influential personage with the great, even where one would least expect it.

The subject continued, acc. to the Four Gospels, from His Arraignment before Pilate till His Delivery to be Crucified.

Acc. to Matt. XXVII. 1–32: "When the morning was come, all the chief priests and elders of the people took counsel against Jesus to put him to death. And when they had bound him they led him away and delivered him to Pontius Pilate, the Governor.

Then Judas, which had betrayed him, when he saw that he was condemned, repented himself, and brought again the thirty pieces of silver to the chief priests and elders, saying: I have sinned, in that I have betrayed the innocent blood. And they said: What is that to us? See thou (to that). And he cast down the pieces of silver in the temple, and departed, and went and hanged himself. And the chief priests took the silver pieces, and said: It is not lawful for to put them into the treasury, because it is the price of blood. And they took counsel, and bought with them the potter's field to bury strangers in. Wherefore that field was called the field of blood unto this day. Then was fulfilled that which was spoken by Jeremy, the prophet, saying: And they took the thirty pieces of silver, the price of him that was valued, whom they of the children of Israel did value; and gave them for the potter's field, as the Lord appointed me. And Jesus stood before the governor. And the governor asked him, saying: Art thou the King of the Jews? And Jesus said unto him: Thou sayest. And when he was accused of the chief priests and elders, he answered nothing. Then said Pilate unto him: Hearest thou not how many things they witness against thee? And he answered him to never a word, insomuch that the Governor marvelled greatly. Now at that feast the Governor was wont to release unto the people a prisoner, whom they would. And they had then a notable prisoner, called Barabbas. Therefore, when they were gathered together, Pilate said unto them: Whom will ye that I release unto you, Barabbas, or Jesus, which is called Christ? For he knew that for envy they had delivered him.

When he was set down on the judgment seat, his wife sent unto him, saying: Have thou nothing to do with that just man; for I have suffered many things this day in a dream because of him. But the chief priests and the elders persuaded the multitude that they should ask Barabbas, and destroy Jesus. The Governor answered and said unto them: Which of the two will ye that I release unto you? They said: Barabbas. Pilate saith unto them: What shall I do then with Jesus, which is called Christ? All say unto him: Let him be crucified. And the Governor said: Why, what evil hath he done? But they cried out the more, saying: Let him be crucified. When Pilate saw that he could prevail nothing, but that rather a tumult was made, he took water and washed his hands before the multitude, saying: I am innocent of the blood of this just person; see ye (to it). Then answered all the people, and said: His blood be on us, and on our children.

Then released he Barabbas unto them: and when he had scourged Jesus, he delivered him to be crucified. Then the soldiers of the

Governor took Jesus into the common hall, (the prætorium) and gathered unto him the whole band, and they stripped him, and put on him a scarlet robe. And when they had plaited a crown of thorns, they put it upon his head, and a reed in his right hand : and they bowed the knee before him, and mocked him, saying : Hail, King of the Jews! And they spit upon him, and took the reed, and smote him on the head. And after that they had mocked him, they took the robe from him, and put his own raiment on him, and led him away to crucify him." *The same according to Mark*, ch. XV. 1–21 : "And straightway in the morning the chief priests held a consultation with the elders and scribes, and the whole council, and bound Jesus and carried him away, and delivered him to Pilate. And Pilate asked him : Art thou the King of the Jews? And he, answering, said unto him : Thou sayest it. And the chief priests accused him of many things ; but he answered nothing. And Pilate asked him again, saying : Answerest thou nothing? Behold how many things they witness against thee. And Jesus yet answered nothing, so that Pilate marvelled. Now at that feast he released unto them one prisoner, whomsoever they desired. And there was one named Barabbas, who lay bound with them that had made insurrection with him, who had committed murder in the insurrection. And the multitude crying aloud began to desire (him to do) as he had ever done unto them. But Pilate answered them, saying : Will ye that I release unto you the King of the Jews? For he knew that the chief priests had delivered him for envy. But the chief priests moved the people that he should rather release Barabbas unto them. And Pilate answered and said again unto them : What will ye then that I shall do unto him whom ye call the King of the Jews? And they cried out again : Crucify him. Then Pilate said unto them : Why, what evil hath he done? And they cried out the more exceedingly : Crucify him. And so Pilate, willing to content the people, released Barabbas unto them, and delivered Jesus, when he had scourged him, to be crucified. And the soldiers led him away into the hall called Prætorium ; and they called together the whole band. And they clothed him with purple, and plaited a crown of thorns and put it about his (head), and began to salute him : Hail, King of the Jews! And they smote him on the head with a reed, and did spit upon him, and bowing their knees worshipped him. And when they had mocked him they took off the purple from him, and put his own clothes on him, and led him out to crucify him." *The same acc. to Luke*, ch. XXIII, 1–26 : "And the whole multitude of them arose and led him unto Pilate. And they began to accuse him, saying : We found this fellow perverting the nation, and forbidding to give tribute to Cæsar, saying that he him-

self is Christ, a king. And Pilate asked him, saying: Art thou the King of the Jews? And he answered him and said: Thou sayest it. Then said Pilate to the chief priests and the people: I find no fault in this man. And they were the more fierce, saying: He stirreth up the people, teaching throughout all Judæa, beginning from Galilee to this place. When Pilate heard of Galilee he asked whether the man were a Galilean. And as soon as he knew that he belonged to Herod's jurisdiction he sent him to Herod, who himself also was at Jerusalem at that time. And when Herod saw Jesus he was exceeding glad; for he was desirous to see him for a long season, because he had heard many things of him; and he hoped to have seen some miracle (lit. sign) done by him. Then he questioned with him in many words, but he showed him nothing. And the chief priests and scribes stood and vehemently accused him. And Herod, with his men of war, set him at nought, and mocked him, and arrayed him in a gorgeous robe, and sent him again to Pilate. And the same day Pilate and Herod were made friends together, for before they were at enmity between themselves. And Pilate when he had called together the chief priests, and the rulers and the people said unto them: Ye have brought this man unto me as one that perverted the people; and, behold, I, having examined him before you, have found no fault in this man touching those things whereof ye accuse him. Nor yet Herod, for I sent you to him, and, lo, nothing worthy of death is done unto him. I will, therefore, chastise him and release him. (For of necessity he must release one unto them at the feast.) And they cried out all at once, saying: Away with this man, and release unto us Barabbas, (who for a certain sedition made in the city, and for murder, was cast into prison.) Pilate, therefore, willing to release Jesus, spake again to them. But they cried, saying: Crucify him, Crucify him. And he said unto them the third time: Why, what evil hath he done? I have found no cause of death in him: I will, therefore, chastise him and let him go. And they were instant with loud voices, requiring that he might be crucified. And the voices of them and of the chief priests prevailed. And Pilate assented that it should be as they required. And he released unto them him that for sedition and murder was cast into prison, whom they desired, and he delivered Jesus to their will."

The same according to John XVIII. 28 to end of chapter: and XIX. 1–17: "Then led they Jesus from Caiaphas, to the hall of judgment; and it was early; and they themselves went not into the judgment hall, lest they should be defiled, but that they should eat the Passover. Pilate then went out unto them, and said: What accusation bring ye against this man? They answered, and said unto him: If

he were not a malefactor, we would not have delivered him up unto thee. Then said Pilate unto them: Take him, and judge him according to your law. The Jews, therefore, said unto him: It is not lawful for us to put any man to death ;* that the saying of Jesus might be fulfilled which he spake, signifying what death he should die. Then Pilate entered into the judgment hall again, and called Jesus, and said unto him: Art thou the King of the Jews? Jesus answered him: Sayest thou this of thyself, or did another tell it thee of me? Pilate answered: Am I a Jew? Thine own nation, and the chief priests, have delivered thee unto me. What hast thou done? Jesus answered: My Kingdom is not of this world; if my Kingdom were of this world, then would my servants fight, that I should not be delivered to the Jews; but now is my kingdom not from hence. Pilate, therefore, said unto him: Art thou a King then? Jesus answered: Thou sayest that I am a King. To this end was I born, and for this cause came I into the world, that I should bear witness unto the truth. Every one that is of the truth heareth my voice. Pilate saith unto him: What is truth? And when he had said this, he went out again unto the Jews, and saith unto them: I find in him no fault; but ye have a custom that I should release unto you one at the Passover. Will ye, therefore, that I release unto you the King of the Jews? Then cried they all again, saying: Not this man, but Barabbas; now Barabbas was a robber. Then Pilate, therefore took Jesus and scourged him. And the soldiers plaited a crown of thorns, and put it on his head, and they put on him a purple robe, and said: Hail, King of the Jews! And they smote him with their hands. Pilate, therefore, went forth again and saith unto them: Behold, I bring him forth to you that ye may know that I find no fault in him. Then came Jesus forth, wearing the crown of thorns and the purple robe. And Pilate saith unto them: Behold the man! When the chief priests, therefore, and officers saw him, they cried out, saying: Crucify him, crucify him. Pilate saith unto them: Take ye him, and crucify him; for I find no fault in him. The Jews answered him: We have a law, and by our law he ought to die, because he made himself the Son of God. When Pilate, therefore, heard that saying, he was the more afraid, and went again into the judgment hall, and saith unto Jesus: Whence art thou? But Jesus gave him no answer. Then said Pilate unto him: Speakest thou not unto me? Knowest thou not that I have power to crucify thee, and power to release thee? Jesus answered: Thou couldest have no power against me, except it were given thee from above; therefore, he that delivered me unto thee hath the greater sin. And from henceforth Pilate sought to release him; but the

* Acc. to Acts, ch. VII., the Jews did not hesitate to put Stephen to death for what they called blasphemy; but he appears to have been killed by a mob, for the Jerusalem Gemera says that the power of capital punishment was taken from the Sanhedrim 40 years before the destruction of the temple.

Jews cried out: If thou let this man go, thou art not Cæsar's friend. Whosoever maketh himself a king speaketh against Cæsar. When Pilate, therefore, heard that saying, he brought Jesus forth, and sat down in the judgment seat, in a place that is called the Pavement, but in the Hebrew, Gabbatha. And it was the preparation for the Passover, and about the sixth hour; and he saith unto the Jews: Behold your King! But they cried out: Away with him; away with him; crucify him. Pilate saith unto them: Shall I crucify your King? The chief priests answered: We have no King but Cæsar. Then delivered he him, therefore, unto them to be crucified: and they took Jesus, and led him away."

Remarks on the Preceding.

All the accounts agree that in the morning they led Jesus from the high priest's house to that of Pilate. In Matthew alone mention is made of Judas, when he reflected on what he had done, bringing back the thirty pieces of silver to the chief priests, and going and hanging himself: and we here find the writer setting forth the exact words which Judas spoke to the priests and elders, and of their answer to him likewise: "I have sinned, in that I have betrayed the innocent blood." And they said: "What is that to us? See thou to that." And also the precise words which the chief priests used when consulting as to the disposition they should make of the money: "It is not lawful for to put them into the treasury, because it is the price of blood." (The reader will doubtless enquire how the writer of this narrative came to be an eye and ear-witness of this transaction, and how it is the writer of the fourth Gospel especially, or the writer of either of the others* does not mention the disposition which Judas made of the money, or of himself afterwards.) So, having consulted, they determined to buy the potter's field with the thirty pieces of silver; and this was done, as usual, acc. to this writer, in order that a prophecy might be fulfilled, ch. XXVII. vs. 9, 10. The reader will of course remember that in Matthew alone is mentioned the definite sum of thirty pieces of silver being given Judas for his services as traitor.

In John alone it is mentioned that on their arrival there with him, the Jews who had conducted him thither would not enter the judgment hall, lest they should defile themselves on this preparation day for the Passover; but that Pilate went out to them and asked what accusation they brought against their prisoner, to which they reply:

---

* Excepting the writer of the third Gospel be understood as also the writer of the book Acts, who gives an affecting representation of it in the first chapter of the last named book.

"If he were not a malefactor we would not have delivered him up unto you." Their first accusation, however, is: "We found this fellow perverting the nation, and forbidding to give tribute to Cæsar, saying, that he himself is Christ, a king." Acc. to the three first narratives, the first question which Pilate asks Jesus is: "Art thou the King of the Jews?" To which Jesus answers: "Thou sayest." But acc. to John, when Pilate asks him: "Art thou the King of the Jews?" Jesus answers him: "Sayest thou this of thyself, or did others tell it thee of me?" Which is followed by Pilate's remonstrance to him, that he is not a Jew, and does not know anything about him, the prisoner; that he has been delivered up to him by the Jews, his own nation; and asking what he had done? To which Jesus replies that his kingdom is not of this world, &c. This is followed by Pilate again asking him: "Art thou a king, then?" To which Jesus answers that he was born for this purpose, that he should bear witness for the truth, and that all that are of the truth hear his voice; implying that he is king of the faithful and true, or truth and perfection personified, persecuted. And Pilate hereupon asks him: "What is truth?" to which question there is no answer given in the narrative, but which may suggest an answer to the reader's mind to the whole representation.

All this, acc. to John, happened *inside* the judgment hall, although still the writer acquaints us with the precise words of the questions and answers of Pilate and Christ to each other. Then Pilate, (ch. XVIII. 38,) goes out again to the Jews who were assembled *outside*, and tells them that he finds no fault in him, and enquires whether he shall release to them Barabbas or the King of the Jews: to which they all respond: "Not this man, but Barabbas."* This representation in John is so far very different from what it is in the other three Gospels.

In Luke alone mention is made of Jesus being sent by Pilate to Herod, and here he is represented as being subjected to a similar ordeal of maltreatment, as he is before Pilate acc. to the other three narratives. The ordeal of maltreatment to which, acc. to Matthew, Mark and John, he is subjected before Pilate is substituted in Luke by the ordeal before Herod. And does it seem strange to any of our readers that the ascribed writer of the Gospel of John, who, with Peter, is represented as accompanying Jesus on that eventful night and morning, does not mention anything about Herod? "And the same day," it is said, "Pilate and Herod were made friends together, for before they were at enmity between themselves." This last sentence makes the narrative appear more reasonable to a person, especially if inclined to give it a literal interpretation. It is, however,

* Barabbas means "Son of the Father." I have heard that in some ancient MSS. this personage is called Jesus Barabbas. This might lead some to think that the discussion in the text is simply one on paper, the two names of one man being made to do duty for two men, were it not

according to universal experience that the rich, the proud, and the wicked often ingratiate themselves with each other by their joint oppression of the poor, the true, the humble and the good. It has, we assume, been so in all ages; and what does the narrative, after all, but set forth each one's experience to himself?

In Matthew alone it is mentioned that when Pilate was set down on the judgment seat his wife sent to him, saying: "Have thou nothing to do with this just man; for I have suffered many things this day in a dream because of him." In the three narratives which represent the ordeal of maltreatment before Pilate,—Matthew, Mark and John,—there is this difference also, that while in Matthew and Mark it is represented as taking place after his sentence is passed and he is delivered over to Pilate to be crucified; in John it is represented as taking place some time before the sentence is passed. In Matthew and Mark the soldiers are they who (after he is delivered up to them) subject Jesus to this ordeal; in John, however, Pilate is represented as superintending and partly doing it himself some time before he passes the sentence upon him. As acc. to John ch. XIX. 4, 5: "Pilate therefore went forth again, and saith unto them: Behold, I bring him forth to you that ye may know that I find no fault in him. Then came Jesus forth, wearing the crown of thorns and the purple robe. And Pilate saith to them: Behold the man." Then ensues a long discussion between the Jews and Pilate as to the release or crucifixion of Jesus, which ultimately the Jews have decided according to their wish. As we have before remarked the ordeal of persecution to which Jesus was subjected on the occasion of his trial took place, acc. to Luke, before Herod, and not before Pilate, before or after sentence. In Matthew alone it is observed: "When Pilate saw that he could prevail nothing, but that rather a tumult was made, he took water and washed his hands before the multitude, saying: I am innocent of the blood of this just person; see ye to it. Then answered all the people, and said: "His blood be on us and on our children." The question, though unimportant, very naturally suggests itself: How had Pilate, a Roman, become acquainted with that Jewish ceremony of washing the hands, so as to practise it on such occasions? (See Deuteronomy, ch. XXI. 6, 7.) These discrepancies which we have noticed, together with many others which the reader may still notice in the narratives, will be found a sufficient barrier against our believing in the representation as literal, but we may still conclude it allegorical, and of equal importance as if literal.

that Barabbas is called a murderer. But the nearest thing to murder which is recorded as having been committed not by Jesus but by one of his band of disciples, is the cutting off of the ear of the high priest's servant. See Luke XXII., 36-38; John XXI., 25. The Gospel's representation of the character of Christ is complex and unique, eclect and extraordinary.

The Subject Continued: The Crucifixion and Interment of Jesus, acc. to the Four Gospels.

Acc. to Matt. XXVII. 32, to the end of the chapter: "And as they came out they found a man of Cyrene, Simon by name: him they compelled to bear his cross. And when they were come unto a place called Golgotha, that is to say, a place of a skull, they gave him vinegar to drink, mingled with gall: and when he had tasted thereof he would not drink. And they crucified him, and parted his garments; casting lots, that it might be fulfilled which was spoken by the prophets: They parted my garments among them, and upon my vesture did they cast lots. And sitting down they watched him there; and set up over his head his accusation written: This is Jesus, the King of the Jews. Then were there two thieves crucified with him, one on the right hand and another on the left. And they that passed by reviled him, wagging their heads, and saying: Thou that destroyest the temple and buildest it in three days, save thyself. If thou be the Son of God, come down from the cross. Likewise also the chief priests, mocking him, with the scribes and elders said: He saved others, himself he cannot save. If he be the King of Israel let him now come down from the cross, and we will believe him. He trusted in God, let him deliver him now if he will have him; for he said: I am the Son of God. The thieves also which were crucified with him cast the same in his teeth. Now from the sixth hour there was darkness over all the land until the ninth hour. And about the ninth hour Jesus cried with a loud voice, saying: Eli, Eli, Lama Sabachthani? That is to say: My God, my God, why hast thou forsaken me? Some of them that stood there when they heard (that) said: This man calleth for Elias. And straightway one of them ran and took a sponge and filled it with vinegar, and put it on a reed, and gave him to drink. The rest said: Let be, let us see whether Elias will come to save him. Jesus when he had cried again with a loud voice yielded up the ghost. And, behold, the veil of the temple was rent in two from the top to the bottom; and the earth did quake and the rocks rent; and the graves were opened; and many bodies of the saints which slept arose; and came out of the graves after his resurrection, and went into the holy city, and appeared unto many. Now when the Centurion and they that were with him watching Jesus saw the earthquake and those things that were done, they feared greatly, saying: Truly this was the Son of God. And many women were there beholding afar off, which followed Jesus from Galilee, ministering unto him,

among whom was Mary Magdalene, and Mary the mother of James and Joses, and the mother of Zebedee's children.

When the even was come there came a rich man of Arimathea, named Joseph, who also himself was Jesus' disciple. He went to Pilate and begged the body of Jesus. Then Pilate commanded the body to be delivered. And when Joseph had taken the body he wrapped it in a clean linen cloth, and laid it in his own new tomb, which he had hewn out in the rock; and he rolled a great stone to the door of the sepulchre, and departed. And there was Mary Magdalene and the other Mary, sitting over against the sepulchre. Now the next day that followed the day of the preparation, the chief priests and Pharisees came together unto Pilate saying: Sir, we remember that this deceiver said, while he was yet alive: After three days I will rise again; command therefore that the sepulchre be made sure until the third day, lest his disciples come by night and steal him away, and say unto the people: He is risen from the dead; so the last error shall be worse than the first. Pilate said unto them: Ye have a watch; go your way, make it as sure as you can. So they went, and made the sepulchre sure, sealing the stone, and setting a watch."

The same according to Mark XV. 21 to end of chapter: "And they compel one Simon, a Cyrenian, who passed by, coming out of the country, the father of Alexander and Rufus, to bear his cross. And they bring him unto the place Golgotha, which is, being interpreted, the place of a skull. And they gave him to drink wine, mingled with myrrh; but he received it not. And when they had crucified him, they parted his garments, casting lots upon them, what every man should take. And it was the third hour, and they crucified him. And the superscription of his accusation was written over: THE KING OF THE JEWS. And with him they crucify two thieves, the one on his right hand, and the other on his left. And the Scripture was fulfilled, which saith: And he was numbered with the transgressors. And they that passed by, railed on him, wagging their heads, and saying: Ah, thou that destroyest the temple and buildest it in three days, save thyself, and come down from the cross. Likewise also the chief priests, mocking, said among themselves with the scribes: He saved others, himself he cannot save. Let Christ, the King of Israel descend now from the cross, that we may see and believe. And they that were crucified with him, reviled him. And when the sixth hour was come, there was darkness over the whole land until the ninth hour. And at the ninth hour, Jesus cried with a loud voice, saying: Eloi, Eloi, Lama Sabachthani? which is, being interpreted: My God, my God, why hast thou forsaken me? And some of them that stood by

when they heard it, said: Behold, he calleth Elias! And one ran and filled a sponge full of vinegar, and put it on a reed, and gave him to drink, saying: Let alone, let us see whether Elias will come to take him down. And Jesus cried with a loud voice, and gave up the ghost. And the veil of the temple was rent in two from the top to the bottom. And when the Centurion, which stood over against him, saw that he so cried out and gave up the ghost, he said: Truly this man was the Son of God. There were also women looking on afar off; among whom was Mary Magdalene, and Mary, the mother of James the Less, and of Joses; and Salome, (who also, when he was in Galilee, followed him, and ministered unto him;) and many other women, which came up with him unto Jerusalem. And now, when the even was come, because it was the preparation, that is, the day before the Sabbath, Joseph of Arimathea, an honorable councillor, which also waited for the kingdom of God, came and went in boldly unto Pilate, and craved the body of Jesus. And Pilate marvelled if he were already dead: and calling the Centurion he asked him whether he had been any while dead. And when he knew it of the Centurion, he gave the body to Joseph. And he bought fine linen, and took him down, and wrapped him in the linen, and laid him in a sepulchre, which was hewn out of a rock, and rolled a stone to the door of the sepulchre. And Mary Magdalene and Mary, the mother of Joses, beheld where he was laid." *The same according to Luke* XXIII. v. 26 to end of chapter: "And as they led him away, they laid hold upon one Simon, a Cyrenian, coming out of the country, and on him they laid the cross, that he might bear it after Jesus. And there followed him a great company of people, and of women, which also bewailed and lamented him. But Jesus turning unto them said: Daughters of Jerusalem, weep not for me, but weep for yourselves and for your children. For, behold, the days are coming in the which they shall say: Blessed are the barren and the wombs which never bare, and the paps which never gave suck. Then shall they begin to say to the mountains: Fall on us; and to the hills: Cover us. For if they do these things in a green tree, what shall be done in the dry? And there were also two other, malefactors, led with him, to be put to death. And when they were come to the place which is called Calvary, there they crucified him, and the malefactors, one on the right hand, and the other on the left. Then said Jesus: Father, forgive them; for they know not what they do. And they parted his raiment, and cast lots. And the people stood beholding. And the rulers also with them, derided him, saying: He saved others; let him save himself if he be Christ, the chosen of God. And the soldiers also mocked him, coming to him and offering him vinegar,

and saying: If thou be the King of the Jews, save thyself. And a superscription also was written over him in letters of Greek, and Latin, and Hebrew: THIS IS THE KING OF THE JEWS. And one of the malefactors which were hanged, railed on him, saying: If thou be Christ, save thyself and us. But the other answering, rebuked him, saying: Dost not thou fear God, seeing thou art in the same condemnation? And we, indeed, justly; for we receive the due reward of our deeds; but this man hath done nothing amiss. And he said unto Jesus: Lord, remember me when thou comest into thy kingdom. And Jesus said unto him: Verily, I say unto thee, to-day shalt thou be with me in Paradise. And it was the sixth hour, and there was darkness over all the land until the ninth hour. And the sun was darkened; and the veil of the temple was rent in the midst. And when Jesus had cried with a loud voice, he said: Father, into thy hands I commend my spirit; and having said this, he gave up the ghost. Now, when the Centurion saw what was done, he glorified God, saying: Certainly this was a righteous man. And all the people that came together to that sight, beholding the things that were done, smote their breasts and returned. And all his acquaintance, and the women that followed him from Galilee, stood afar off, beholding these things.

And, behold, there was a man named Joseph, a councillor; and he was a good man and a just: (the same had not consented to the counsel and deed of them;) he was of Arimathea, a city of the Jews, who also himself waited for the kingdom of God. This man went unto Pilate and begged the body of Jesus. And he took it down, and wrapped it in linen, and laid it in a sepulchre that was hewn in stone, wherein never man before was laid. And that day was the preparation, and the Sabbath drew on. And the women also which came with him from Galilee, followed after, and beheld the sepulchre, and how his body was laid. And they returned and prepared spices and ointments, and rested the Sabbath day, according to the commandment." *The same acc. to John* XIX. v. 16 to end of chapter. "And they took Jesus and led him away. And he, bearing his cross, went forth into a place called the place of a skull, which is called in the Hebrew, Golgotha, where they crucified him, and two others with him, on either side, and Jesus in the midst. And Pilate wrote a title, and put it on the cross; and the writing was: JESUS OF NAZARETH, THE KING OF THE JEWS. This title, then, read many of the Jews; for the place where Jesus was crucified was nigh to the city; and it was written in Hebrew, and Greek, and Latin. Then said the chief priests of the Jews to Pilate: Write not the King of the Jews; but that he said: I am the King of the Jews. Pilate an

swered: What I have written I have written. Then the soldiers, when they had crucified Jesus, took his garments and made four parts, to every soldier a part; and also his coat; now, the coat was without seam, woven from the top throughout. They said, therefore, among themselves: Let us not rend it, but cast lots for it, whose it shall be; that the Scripture might be fulfilled, which saith: They parted my raiment among them, and for my vesture did they cast lots. These things therefore, the soldiers did. Now, there stood by the cross of Jesus, his mother and his mother's sister, Mary, the wife of Cleophas, and Mary Magdalene. When Jesus, therefore, saw his mother, and the disciple standing by, whom he loved, he saith unto his mother: Woman, behold thy son! Then saith he to the disciple: Behold thy mother! And from that hour that disciple took her unto his own home.

After this, Jesus, knowing that all things were now accomplished, that the Scripture might be fulfilled, saith: I thirst. Now there was set a vessel full of vinegar, and they filled a sponge with vinegar and put it upon hyssop, and put it to his mouth. When Jesus, therefore, had received the vinegar, he said: It is finished; and he bowed his head, and gave up the ghost. The Jews, therefore, because it was the preparation, that the bodies should not remain upon the cross on the Sabbath, (for that Sabbath-day was a high day), besought Pilate that the legs might be broken and that they might be taken away. Then cometh the soldiers and brake the legs of the first and of the other which was crucified with him. But when they came to Jesus and found that he was dead already they brake not his legs. But one of the soldiers, with a spear, pierced his side, and forthwith came there out blood and water. And he that saw it bare record, and his record is true, and he knoweth that he saith true that ye might believe. For these things were done, that the Scripture should be fulfilled: A bone of him shall not be broken. And, again, another Scripture saith: They shall look on him whom they pierced.

And after this, Joseph of Arimathea, being a disciple of Jesus, but secretly, for fear of the Jews, besought Pilate that he might take away the body of Jesus. And there came also Nicodemus, which at the first came to Jesus by night. Then took they the body of Jesus, and bound it in linen clothes, with the spices, as the manner of the Jews is to bury. Now, in the place where he was crucified there was a garden; and in the garden a new sepulchre, wherein was never man yet laid. There laid they Jesus, therefore, because of the Jews' preparation day; for the sepulchre was nigh at hand."

Remarks on the Preceding.

Three of the narratives, Matthew, Mark, and Luke, agree that Simon, the Cyrenian, bore the cross of Jesus to Golgotha, or Calvary, which means the same thing, the place of a skull. In John, nothing is said concerning this Simon. Christ is represented as bearing his own cross to Golgotha. Acc. to Matthew, on their arrival at the place of execution they gave him to drink vinegar mingled with gall; according to Mark, wine mingled with myrrh; and acc. to Luke, the soldiers also mocked him, coming to him and offering him vinegar. Acc. to John, when he is at the point of death, knowing that all things were now accomplished, that the Scriptures might be fulfilled, he saith: I thirst; and they filled a sponge with vinegar, and put it upon hyssop and put it to his mouth. And in Matthew also just about this point, it is again said that one of them ran and took a sponge, and filled it with vinegar, and put it on a reed and gave him to drink. Acc. to Matthew they set up over his head on the cross, his superscription, written as follows: THIS IS JESUS THE KING OF THE JEWS. Acc. to Mark, the superscription is: THE KING OF THE JEWS. Acc. to Luke, it is: THIS IS THE KING OF THE JEWS. And acc. to John, it is; JESUS OF NAZARETH, THE KING OF THE JEWS. Here then the reader beholds four different forms for the superscription represented to have been over the head of Jesus on the cross; and, if he can determine the original or true *one* amongst them, we think he will experience no difficulty in deciphering the character, the name, and the number of the beast of the book of Revelation, which we have afterwards to speak of. The last part of the superscription, "The King of the Jews," is, however, the same in all, and, in this case, the different expressions appear to be intended variations of the same expression in the different narratives. Acc. to Luke and John, the superscription was written in Hebrew, Greek, and Latin. In Matthew and Mark is not mentioned more than one language. In Luke alone, mention is made of a discourse which Jesus addresses to the women following him to Golgotha, commencing with: "Daughters of Jerusalem, weep not for me, but weep for yourselves and for your children." Quite a deliberate discourse, for one bearing a heavy cross; but here he is represented as relieved of his cross by the Cyrenian, though in John he is represented as carrying it to Golgotha himself. Acc. to Matthew, when they crucified him, they parted his garments, casting lots, that a certain prophecy might thereby be fulfilled. The parting of his garments, is mentioned in Mark and Luke, but it is not said that this is done in order that any prophecy might be fulfilled by it.

In John there is quite a peculiar representation of the parting of the garments; the writer goes on to state: "Then the soldiers when they crucified Jesus took his garments and made four parts, to every soldier a part; and also his coat; now the coat was without seam, woven from the top throughout. They said, therefore, among themselves: Let us not rend it, but cast lots for it, whose it shall be, that the Scripture might be fulfilled, which saith: They parted my raiment among them, and upon my vesture they did cast lots." In all four narratives mention is made of two malefactors who were crucified with Jesus. And acc. to Mark the Scripture was by this fulfilled which saith: He was numbered with the transgressors. Acc. to Matthew and Mark, the thieves that were crucified with him reviled him among the rest. No such representation is made in John; but in Luke it is said: One of the malefactors which were hanged reviled on him saying: If thou be Christ, save thyself and us. But the other answering rebuked him, saying: Dost not thou fear God, seeing thou art in the same condemnation; and we indeed justly, for we receive the due reward of our deeds; but this man hath done nothing amiss. And he said unto Jesus: Lord remember me when thou comest into thy kingdom. And Jesus said unto him: Verily, I say unto thee, to-day shalt thou be with me in Paradise." Nothing is said about this discourse between the two thieves, (which we may remark seems quite a deliberate one to be delivered by men while agonizing on the cross,) or of that between the repentant thief and Christ, in any other Gospel but Luke's. And will it not seem strange to some of our readers that John, the ascribed writer of the fourth Gospel, who, under the name of the beloved disciple, is represented to have been present at the crucifixion, does not once mention so affecting a circumstance?

As to the words which Jesus uttered when about to expire, all the narratives are different. Matthew has it: "Eli, Eli, Lama Sabachthani," that is to say: My God, my God, why hast thou forsaken me? Acc. to Mark they are: "Eloi, Eloi, Lama Sabachthani?" which is, being interpreted, my God, my God, why hast thou forsaken me? The expression in Luke is: "Father, into thy hands I commend my spirit;" and having said this he yielded up the spirit. Acc. to John the expression is; "It is finished," and he bowed his head, and gave up the spirit. Which then of these expressions of dying words is the true and original one which Christ uttered? for they are all different from each other; for although Eloi, Eloi, Lama Sabachthani, is the same in meaning as Eli, Eli, Lama Sabachthani, yet they are different expressions, and there could be only one of them original. And does it not seem strange to some of our readers

that the writer of the fourth Gospel, who is represented as being present at the crucifixion as that beloved disciple, does not make mention of that long exclamation recorded in Matthew and Mark, nor of the understanding the bystanders had of his calling for Elias? But the writer of this Gospel represents Christ as using an entirely different expression. We cannot of course conclude these narratives as having a literal signification; but they are symbolical, quite as important as if they were literal, and their explanation we decide to be the business of the ministers of the Gospel, who should, we think, clearly discern and make a not imperceptible distinction between allegory and history.

As to the time at which the crucifixion took place the narratives differ. This is not distinctly stated in Matthew and Luke; it is implied, however, that it was some time in the morning. Acc. to Mark it took place at the third hour. "And it was the third hour, and they crucified him." Acc. to John it was about the sixth hour. "And it was the preparation for the Passover, and about the sixth hour, and he (Pilate) saith unto the Jews: Behold your King." Upon which, in answer to the clamors of the Jews, he immediately delivers him to be crucified, ch. XIX. verses 14 15, 16. Here there appears to be a difference of three hours or nearly that, reckon it as we will, that is, considering Pilate to have given up Jesus as soon as the narrative would seem to imply he did after he had showed him as king to the Jews. For if the writer in John reckoned from twelve midnight, as acc. to the Roman method of reckoning time, it would be six o'clock, a.m., or soon after; and if the writer in Mark reckoned from six in the morning, as according to the Jews' reckoning of the natural day, it would be nine o'clock, a. m., still a difference of three hours.*

In three of the narratives, Matthew, Mark and Luke, mention is made of the darkness that overspread the land from the sixth to the ninth hour, during the crucifixion; and at the ninth hour these three narratives agree Jesus died. Now according to the reckoning of the Jews' natural day, which it is supposed the writers of the first three narratives followed, this darkness would commence at twelve o'clock and end at three past morning, when Jesus should have died. But according to the Roman mode of reckoning it would have commenced at six o' clock in the morning, or shortly after

---

* The Romans reckoned their day from midnight to midnight. The Jews had two kinds of hours, viz. the astronomical, or equinoctial hour, the 24th part of a civil day between sunset and sunset, or sunrise and sunrise; and, second, the natural hour, the twelfth part of a natural day, or the time between sunrise and sunset; which last measure it is plain must have varied at different times of the year. (See Smith's B. D.)

when Jesus was crucified, and end at nine in the morning, when he had died. This darkness, and the time of the dying of Christ, is not mentioned in the narrative in John. And would it seem strange to any of our readers that the writer of the fourth Gospel, who is represented to us in the common opinion as being present at the crucifixion, does not mention this darkness? And does it seem as little strange that it is not mentioned by any of the historical writers of that period, or of a couple of centuries afterwards, although it is represented to have happened during the lifetime of the celebrated Roman writers Seneca and the elder Pliny, who must have experienced the immediate effects, or received the earliest intelligence of such a prodigy happening within a province of the Roman Empire with which Rome had constant communication? Each of these philosophers in an elaborate work has recorded all the great phenomena of nature, earthquakes, meteors, comets, and eclipses which his indefatigable curiosity could collect. Both of them have, however, omitted to mention these phenomena mentioned in the Gospels as attending upon the crucifixion of Jesus. A distinct chapter of Pliny is designed for eclipses of an extraordinary nature and unusual duration; but he contents himself with describing a singular defect of light which followed the murder of Julius Cæsar, when during the greatest part of a year the sun appeared pale and without splendor. It does not seem that such a pale obscurity as he condescends to describe could be compared with the preternatural darkness of the Passion, mentioned in the three first Gospels.

The three first Gospels mention the rending of the veil of the temple (that is, the curtain which separated the holy from the holiest place in the Jewish temple) into two parts from the top to the bottom in connection with the dying of Christ. But Matthew has in addition to this that "the earth did quake and the rocks rent; and the graves were opened; and many bodies of the saints which slept arose, and came out of the graves after his resurrection, and went into the holy city and appeared unto many." Now does it seem strange that the rending of the veil of the temple is not mentioned in the fourth Gospel, the writer of which some would represent as being present at the crucifixion? And that the earthquake, the rending of the rocks, the opening of the graves, and the arising of the dead bodies of the deceased (κεκοιμένων) saints, after his resurrection, and their going into the city, and appearing to many there, are not mentioned in any other Gospel but Matthew, nor in any other history of that period, not even in that of Josephus, which is a history of the events of that time and country.

The expression which the Centurion makes use of on beholding

the wonders which take place on the dying of Jesus is represented as different in the three narratives, Matthew, Mark and Luke, in which alone it is mentioned. Acc. to Matthew, the Centurion, and they that were with him feared greatly, saying: "Truly this was the Son of God." Acc. to Mark, the Centurion said: "Truly this man was the Son of God." Acc. to Luke the Centurion glorified God, saying: "Certainly this was a righteous man." Can we determine which of these expressions, for each of them affects to be the original one, the Centurion used; or did he use any of them? This indeed surpasses our ability, but we must confess the Centurion may have been like some of modern times whose zeal surpasses their knowledge, and in his enthusiasm have used repeated expressions. In John no mention is made of this Centurion; and does it seem likely that the writer of the fourth Gospel, if, as some are of the opinion, he were present at the crucifixion, would have omitted mention of such a worthy testimony to his master?

In the four narratives women are mentioned as being present at the crucifixion; in three only, Matthew, Mark and John, particular women are mentioned. Acc. to Matthew: "And many women were there, beholding afar off, who followed Jesus from Galilee, ministering to him; among whom was Mary Magdalene, and Mary the mother of James and Joses, and the mother of Zebedee's children." Acc. to Mark: "There were also women looking on afar off; among whom was Mary Magdalene, and Mary the mother of James the Less, and of Joses; and Salome. It is yet an unsettled point among Bible interpreters whether this Salome is identical with the wife of Zebedee, or with Mary the wife of Cleophas, mentioned in John XIX. 25, though the weight of modern criticism preponderates in favor of the former view. Acc. to John: "Now there stood by the cross of Jesus his mother and his mother's sister,* Mary the wife of Cleophas, and Mary Magdalene. This narrative alone goes on to say: "When Jesus, therefore, saw his mother, and the disciple standing by whom he loved, he saith unto his mother: Woman, behold thy Son! Then said he to the disciple: Behold thy mother! And from that hour that disciple took her unto his own home." In John alone also it is related how that the Jews besought Pilate to have the legs of those that were crucified broken in order that the bodies might be removed from the crosses before the Sabbath came on; how that the legs of the two thieves were broken by the soldiers, but those of Jesus were left unbroken because they found him already dead; and how they pierced his side and there came out water and blood; and then it is added that "these things were done that the Scripture should be fulfilled: a bone of him shall not be broken; and again another Scrip-

* It sometimes has appeared to me strange that there should have been two sisters named Mary. Perhaps such a practice as to naming was common among the Jews.

ture saith: They shall look on him whom they pierced." It may seem strange to some readers that this delivering of the mother to the beloved disciple, and of him to her, and this act of the breaking of the legs of the other two, and of the piercing of the side of Jesus, with its attendant phenomena, are not mentioned in either of the other three narratives of the crucifixion. But, doubtless they have all come, ere they have read thus far, to think in a different way about these matters from that in which they may have been accustomed to think.

In each of the four Gospels, there is a narrative of the burial of Jesus; in each of the four, Joseph of Arimathea is mentioned as connected with the burial, in the first three naratives as interring the body himself, in the fourth as doing it together with Nicodemus. According to the first three narratives, Joseph wraps the body in linen merely, and in this state consigns it to the tomb. But, according to the fourth Gospel, Joseph and Nicodemus embalm it with a mixture of myrrh and aloes, about an hundred pound weight, which Nicodemus had brought for that purpose; wrapping it in linen with the spices, as the manner of the Jews is to bury; they thus inter it. Now in Matthew it says: "And there was Mary Magdalene and the other Mary sitting over against the sepulchre," present, looking on at the burial. And in Mark it says: "And Mary Magdelene, and Mary the mother of Joses beheld where he was laid." And in Luke it says: "And the women also who came with him from Galilee followed after and beheld the sepulchre, and how his body was laid. And they returned, and prepared spices and ointments, and rested the Sabbath-day, according to the commandment." And in the continuation of the narratives (as you will see) we find these very Marys represented as first at the sepulchre on Sunday morning, and, according to Mark and Luke, bringing the spices which they had in the mean time prepared to embalm the body: (See Matthew XXVIII. 1; Mark XVI. 1; Luke XXIV. 1; John XX. 1.) And now how does it happen that if, as according to the first three narratives, these women were present at the interment, and beholding how the body was laid; (for, according to Luke, they beheld the sepulchre, and how his body was laid,) they did not observe, as according to John, that it was embalmed by Nicodemus and Joseph, and thus have known it to be unnecessary for them to go to the trouble and expense of that work? How does it happen that neither Nicodemus nor the embalming is mentioned in the first three narratives, which we find spoken of and asserted in John? Does there not appear a contradiction expressed or implied here? And which of these narratives of the interment of Jesus are we to take for the original one?

This we are unable to determine. Their allegorical meaning is, however, important.

In Matthew alone mention is made of the chief priests and Pharisees coming together to Pilate on the next day after the interment, that is on the Sabbath, and saying: "Sir, we remember that that deceiver said while he was yet alive: After three days I will rise again: Command, therefore, that the sepulchre be made sure until the third day, lest his disciples come by night and steal him away, and say unto the people: He is risen from the dead; so the last error shall be worse than the first." Pilate said to them: "Ye have a watch; go your way, make it as sure as ye can;" so they went and made the sepulchre sure; sealing the stone and setting a watch." We have no evidence that the writer of the narrative witnessed the sealing. But here he represents to us the precise words of the conversation between the chief priests and Pharisees and Pilate with respect to Jesus, the sealing of the stone, and the setting of the watch. Now how did he come to be an eye and ear-witness of this? We do not learn that any of the disciples visited the sepulchre on the Sabbath-day: but we learn that when they did visit it on the morning of the first day of the week they found the stone rolled away from the entrance of it. Nor do we learn that any of them ever saw any indication of the sealing of the stone. It seems if the writers of the other three Gospels had learned any thing about this sealing and setting of the watch they would be very likely to have recorded it.

The same subject continued: the Narratives of the Resurrection according to the Four Gospels.

Acc. to Matthew XXVIII.: "In the end of the Sabbath, as it began to dawn toward the first day of the week, came Mary Magdalene and the other Mary to see the sepulchre. And, behold, there was a great earthquake; for the angel of the Lord descended from heaven, and came and rolled back the stone from the door, and sat upon it. His countenance was like lightning, and his raiment white as snow; and for fear of him the keepers did shake, and became as dead men. And the angel answered and said unto the women; Fear not ye; for I know that ye seek Jesus which was crucified. He is not here, for he is risen, as he said. Come, see the place where the Lord lay. And go quickly, and tell his disciples that he is risen from the dead; and behold he goeth before you into Galilee; there shall ye see him; lo, I have told you. And they departed quickly from the sepulchre with fear and great joy; and did run to bring his disciples word. And as they went to tell his disciples, behold, Jesus met them saying; All hail. And they came and held him by the feet and wor-

shipped him. Then said Jesus unto them: Be not afraid. Go tell my brethren that they go into Galilee, and there shall they see me. Now when they were going, behold, some of the watch came into the city, and showed unto the chief priests all the things that were done. And when they were assembled with the elders, and had taken counsel, they gave large money unto the soldiers, saying: Say ye, His disciples came by night and stole him while we slept. And if this come to the Governor's ears we will persuade him and secure you. So they took the money and did as they were taught, and this saying is commonly reported among the Jews until this day.

Then the eleven disciples went away into Galilee into a mountain where Jesus had appointed them. And when they saw him they worshipped him, but some doubted. And Jesus came and spake unto them, saying: All power is given unto me in heaven and in earth. Go ye, therefore, and teach all nations, baptising them *into* the name of the Father and of the Son and of the Holy Spirit; teaching them to observe all things whatever I have commanded you; and, lo, I am with you alway, even unto the end of the world." *The same according to Mark* XVI.: "And when the Sabbath was past Mary Magdalene, and Mary the mother of James, and Salome had bought sweet spices (Greek ἀρώματα) the same as in John XIX., 40, and from which comes our word aromatics,) that they might come and anoint him. And very early in the morning the first day of the week they came to the sepulchre at the rising of the sun. And they said among themselves: Who shall roll us away the stone from the door of the sepulchre. And when they looked they saw that the stone was rolled away, for it was very great; and entering into the sepulchre they saw a young man sitting at the right side, clothed in a long white garment; and they were affrighted. And he saith unto them; Be not affrighted; ye seek Jesus of Nazareth which was crucified; he is risen; behold the place where they laid him. But go your way, tell his disciples, and Peter, that he goeth before you into Galilee; there shall ye see him as he said unto you. And they went out quickly, and fled from the sepulchre; for they trembled and were amazed, neither said they anything to any man; for they were afraid.

Now when Jesus was risen early the first day of the week he appeared first to Mary Magdalene, out of whom he had cast seven devils. She went and told them that had been with him, as they mourned and wept. And they, when they had heard that he was alive and had been seen of her, believed not. After that he appeared in another form unto two of them as they walked and went into the country. And they went and told it unto the residue; neither be-

lieved they them. Afterwards he appeared to the eleven as they sat together, and upbraided them with their unbelief and hardness of heart, because they believed not them who had seen him after he was risen. And he said unto them: Go ye into all the world, and preach the gospel to every creature. He that believeth and is baptized shall be saved; but he that believeth not shall be condemned. And these signs shall follow them that believe; In my name shall they cast out devils; they shall speak with new tongues; they shall take up serpents; and if they drink any deadly thing it shall not hurt them; they shall lay hands on the sick and they shall recover. So then after the Lord had spoken unto them he was received up into heaven, and sat on the right hand of God. And they went forth and preached everywhere, the Lord working with them, and confirming the word with signs following." *The same acc. to Luke*, ch. XXIV.: "Now upon the first day of the week, very early in the morning, they (the women) came unto the sepulchre, bringing the spices (τὰ ἀρώματα) which they had prepared, and certain others with them. And they found the stone rolled away from the sepulchre; and they entered in, and found not the body of the Lord Jesus. And it came to pass as they were much perplexed thereabout, behold, two men stood by them in shining garments. And as they were afraid and bowed down their faces to the earth they said unto them: Why seek ye him that liveth among the dead? He is not here, but is risen; remember how he spake unto you when he was yet in Galilee, saying: The Son of Man must be delivered into the hands of sinful men, and be crucified, and the third day rise again. And they remembered his words and returned from the sepulchre, and told all these things to the eleven, and to all the rest. It was Mary Magdalene, and Joanna, and Mary the mother of James, and other women that were with them who told these things unto the apostles. And their words seemed to them as idle tales, and they believed them not. Then arose Peter and ran unto the sepulchre; and, stooping down, he beheld the linen clothes laid by themselves, and departed, wondering in himself at that which was come to pass.

And, behold, two of them went that same day to a village called Emmaus, which was from Jerusalem about three score furlongs. And they talked together of all these things which had happened. And it came to pass that while they communed and reasoned Jesus himself drew near and went with them. But their eyes were holden that they should not know him: And he said unto them: What manner of communications are these that ye have one with another as ye walk and are sad? And the one of them, whose name was Cleophas, answering, said unto him: Art thou only a stranger in

Jerusalem, and hast not known the things which are come to pass there in these days? And he said unto them: What things? And they said unto him: Concerning Jesus of Nazareth, which was a prophet, mighty in deed and word before God and all the people; and how the chief priests and our rulers delivered him to be condemned to death, and have crucified him. But we trusted that it had been he which should have redeemed Israel; and beside all this, to-day is the third day since these things were done. Yea, and certain women also of our company made us astonished, who were early at the sepulchre; and when they found not his body they came saying that they had also seen a vision of angels, which said that he was alive. And certain of them which were with us went to the sepulchre, and found it even so as the women had said; but him they found not. Then he said unto them: O fools and slow of heart to believe all that the prophets have spoken. Ought not Christ to have suffered these things and to enter into his glory? And beginning at Moses and all the prophets he expounded to them from all the Scriptures the things concerning himself. And they drew nigh unto the village whither they went; and he made as though he would have gone further. But they constrained him, saying: Abide with us, for it is towards evening, and the day is far spent. And he went in to tarry with them. And it came to pass as he sat at meat with them, he took bread and blessed it, and brake, and gave to them. And their eyes were opened, and they knew him; and he vanished out of their sight. And they said one to another: Did not our heart burn within us, while he talked with us by the way, and while he opened to us the Scriptures? And they rose up the same hour returned to Jerusalem, and found the eleven gathered together, and they that were with them, saying: The Lord is risen indeed, and hath appeared to Simon. And they told what things were done in the way, and how he was known of them in the breaking of bread.

And as they thus spake Jesus himself stood in the midst of them, and saith unto them: Peace be unto you. But they were terrified and affrighted, and supposed that they had seen a spirit. And he said unto them: Why are ye troubled? And why do thoughts arise in your hearts? Behold my hands and my feet, that it is I myself; handle me and see; for a spirit hath no flesh and bones, as ye see me have. And when he had thus spoken he showed them his hands and his feet. And while they yet believed not for joy and wondered, he said unto them: Have ye here any meat? And they gave him a piece of a broiled fish and of an honeycomb. And he took it and did eat before them. And he said unto them: These are the words which I spake to you, while I was yet present with you, that

all things must be fulfilled which were written in the Law of Moses, and in the prophets, and in the psalms concerning me. Then opened he their understanding, that they might understand the Scriptures, and said unto them: Thus it is written, and thus it behooved Christ to suffer, and to rise from the dead the third day; and that repentance and remission of sins should be preached in his name among all nations, beginning at Jerusalem. And ye are witnesses of these things. And behold I send the promise of my Father upon you; but tarry ye in the city of Jerusalem until ye be endued with power from on high. And he led them out as far as to Bethany, and he lifted up his hands and blessed them. And it came to pass as he blessed them he was parted from them, and was carried up into heaven. And they worshipped him, and returned to Jerusalem with great joy; and were continually in the temple, praising and blessing God." *The same according to* John, ch. XX.: "The first day of the week cometh Mary Magdalene early when it was yet dark unto the sepulchre, and seeth the stone taken away from the sepulchre. Then she runneth, and cometh to Simon Peter and to the other disciple whom Jesus loved, and saith unto them: They have taken away the Lord out of the sepulchre, and we know not where they have laid him. Peter, therefore, went forth, and that other disciple, and came to the sepulchre. So they ran both together, and the other disciple did outrun Peter, and came first to the sepulchre. And he stooping down, saw the linen clothes lying, yet went he not in. Then cometh Simon Peter following him, and went into the sepulchre, and seeth the linen clothes lie, and the napkin that was about his head, not lying with the linen clothes, but wrapped together in a place by itself. Then went in also that other disciple who came first to the sepulchre, and he saw and believed; for as yet they knew not the Scriptures, that he must rise again from the dead. Then the disciples went away again unto their own home. But Mary stood without at the sepulchre, weeping; and as she wept she stooped (and looked) into the sepulchre, and seeth two angels in white, sitting, the one at the head and the other at the foot, where the body of Jesus had lain. And they said unto her: Woman, why weepest thou? She said unto them: Because they have taken away my Lord, and I know not where they have laid him. And when she had thus said she turned round and saw Jesus standing, and knew not that it was Jesus. Jesus saith unto her: Woman, why weepest thou? Whom seekest thou? She, supposing him to be the gardener, saith unto him: Sir, (lit. Lord) if thou hast borne him hence, tell me where thou has laid him, and I will take him away. Jesus saith unto her: Mary. She turned herself and saith to him: Rabboni, which is to say, Teacher.

Jesus saith unto her: touch me not, for I am not yet ascended to my Father; but go to my brethren, and say unto them: I ascend unto my Father and to your Father, and to my God and your God. Mary Magdalene came and told the disciples that she had seen the Lord, and he had spoken these things unto her.

Then the same day at evening, being the first day of the week, when the doors were shut where the disciples were assembled, for fear of the Jews, came Jesus and stood in the midst, and saith unto them: Peace be unto you. And when he had so said he showed unto them his hands and his side. Then were the disciples glad when they saw the Lord. Then said Jesus to them again: Peace be unto you; as my Father hath sent me, even so send I you. And when he had said this, he breathed on them and said: Receive ye the Holy Spirit. Whosesoever sins ye remit they are remitted unto them: whosesoever sins ye retain they are retained.

But Thomas, one of the twelve, called Didymus, was not with them when Jesus came. The other disciples, therefore, said unto him: We have seen the Lord. But he said unto them: Except I shall see in his hands the print of the nails, and put my fingers into the print of the nails, and thrust my hand into his side I will not believe.

And after eight days again his disciples were within, and Thomas with them; then came Jesus, the doors being shut, and stood in the midst, and said: Peace be unto you. Then said he to Thomas: Reach hither thy finger and behold my hands, and reach hither thy hand and thrust it into my side; and be not faithless, but believing. And Thomas answered and said unto him: My Lord, and my God. Jesus saith unto him: Thomas, because thou hast seen me thou hast believed; blessed are they that have not seen, and yet have believed.

And many other signs truly did Jesus in the presence of his disciples which are not written in this book. But these are written that ye might believe that Jesus is the Christ, the Son of God, and that believing ye might have life through his name."

Remarks on the Preceding.

These four representations of the resurrection of Jesus are, as it is seen, considerably different from each other. All the narratives agree that early in the morning on the first day of the week there came certain women to the sepulchre, and found the stone rolled away from the entrance of it. Acc. to Matthew these were Mary Magdalene and the other Mary, doubtless Mary the mother of James

and Joses is meant; and acc. to Mark, Mary Magdalene and Mary the mother of James; and Salome. Acc. to Luke, they were Mary Magdalene and Joanna and Mary the mother of James,* and certain others with them, who, acc. to Mark and Luke, had brought sweet spices, ἀρώματα, that they might anoint the body, that is, embalm it in the way in which the Jews were accustomed to do.† In John mention is made of only one woman, Mary Magdalene, coming to the sepulchre, when it was yet dark. As to these women and what they observed and did on their arrival at the sepulchre the narratives differ considerably. We have, acc. to Matthew, two women who, when they arrive at the sepulchre, see the stone rolled away from the door of it, and one bright terror-inspiring angel sitting upon the stone outside of the sepulchre, who announces to them that Christ is risen, invites them to come and see the place where he had lain, and tells them to inform his disciples of the resurrection, and that they should go before into Galilee, where they would see Jesus, as he the angel, announces to them. And as they turn away from the sepulchre and run to bring the disciples word we find them meeting Jesus, holding him by the feet, and worshipping him. And hereupon Jesus tells them to go and inform his brethren that they may go into Galilee and shall see him there.

According to Mark we have three women represented, who, coming to the sepulchre and finding the stone rolled away from its entrance, go into it. And they see one young man (meaning an angelic representation) clothed in a long white garment, sitting on the right side as they entered in, who tells them not to be affrighted; informs them whom they seek; invites them to behold the place where the body had lain; and bids them to tell his disciples and Peter that he goes before them into Galilee, where they shall see him, as he had told them before. These turned away quickly and fled from the sepulchre, neither did they say anything to any one, for they were afraid. It does not say that these women, one of whom was Mary Magdalene, saw Jesus on their return from the sepulchre. But notice what follows in connection with the foregoing, in Mark's narrative of the resurrection: "Now, when Jesus was risen early the first day of the week, he appeared first to Mary Magdalene, out of whom he had cast seven devils. She went and told them that had been with him, as they mourned and wept. And they, when they had heard that he was alive, and had been seen of her, believed not." Verily, it seems that Mary Magdalene must have had this sight of Jesus before or after her return with the two other women from the sepul-

* In Matt. XIII., 55, 56, Jesus is said to have had brothers named James and Joses and Simon and Judas, and here also he is said to have had sisters. These Nazarene children, doubtless, as well as their mother Mary, kept close to Jesus during his trials and sufferings.

† See Smith's B.D. Art. "Embalming."

chre ; or would she be more likely to have had it on her return with them ; and to have had such a mark of respect paid her, in preference to the other two, seeing she had been of old a favorite with Jesus, as appears evident she was from the great good he had wrought for her? But our readers will say this will hardly do, for God is nó respecter of persons. Doubtless, this is true, and we might be able to deduce an instructive lesson from this story of Mary seeing Jesus. These symbols, however, we shall leave for the explanation of Christian ministers, whose calling it is ; and who will show their connection with the other parts of the sacred allegory.

According to Luke we have three women represented, who are mentioned by name, and others not named, who, on coming to the sepulchre find the stone rolled away from its door ; and having entered into it, they find not the body of Jesus. And as they are much perplexed on finding that the body is not there, they see two men standing by them in shining garments. As they are afraid, and bow down their faces toward the earth, these angels ask them why they seek him that liveth among the dead? They hereupon inform them that he is risen, and remind them of what he has told them while he was yet present with them in Galilee, how that he was to suffer and die, and rise on the third day. The women remember his words, return from the sepulchre, and inform the disciples of what they had seen and heard ; but the latter hesitate to believe what they tell them. Peter at length goes to the sepulchre, and stooping down, so as to look in, he sees the linen clothes lying by themselves, and departs, wondering at what had happened , but he is not represented in this narrative to have entered into the sepulchre. In Luke's narrative it is not mentioned that the women saw Jesus on their return from the sepulchre ; nor is it said that Mary Magdalene, or any other of the women, saw him on the morning of the resurrection.

Acc. to John, when Mary Magdalene, who alone of the women is mentioned in this narrative as coming to the sepulchre on that morning, finds the stone rolled away from the entrance of it, without being represented to have entered into it, she runs to inform Peter and the other disciple whom Jesus loved, that they had taken away the Lord out of the sepulchre, and she knew not where they had laid him. Then Peter and the other disciple, on being thus informed, run both together toward the sepulchre ; and the other disciple outrunning Peter, arrives there first ; and, stooping down and looking in, he sees the linen clothes lying, yet he enters not in. Then comes the laggard Peter, following him, and enters boldly into the sepulchre, and sees the linen clothes lie, and the napkin that had been

about his head, not lying with the linen clothes,* but wrapped together in a place by itself. Finally, that other disciple that came first to the sepulchre, musters up enough of courage to enter into it, and he has only to see in order to be convinced. "For as yet they knew not the Scriptures, that he should rise again from the dead," although he is represented in Luke as having told them before, in Galilee, that he should be put to death and rise the third day. Then these disciples return again to their own home, without their having seen (acc. to the representation) either angel or spirit or the Lord Jesus. But, after the departure of the two disciples, Mary (Magdalene) still lingers at the tomb, weeping; and she, stooping down and looking into the sepulchre, sees two angels clothed in white, sitting, the one at the head and the other at the foot of where the body of Jesus had lain. They say to her: Woman, why weepest thou? She says to them: Because, they have taken away my Lord, and I know not where they have laid him. And having thus spoken, she turned herself back, and sees Jesus standing, and knows not that it is Jesus. Jesus says to her: Woman, why weepest thou? Whom seekest thou? She, taking him to be the gardener, said to him: Lord, if thou have borne him hence tell me where thou hast laid him, and I will take him away. Jesus says to her: Mary. She turns herself and says to him: Rabboni. Jesus says to her: Touch me not, for I am not yet ascended to my Father, but go and tell my brethren that I ascend to my Father and your Father, and (to) my God and your God. Mary comes and informs the disciples that she had seen the Lord, and what he had said to her.

Thus we see the scene at the sepulchre is different in each of the narratives. In Matthew, we have represented two women who behold one bright angel sitting on the stone *outside* of the sepulchre, into which they did not enter. In Mark, we have represented three women, who see one young man clothed in a long white garment *inside* of the sepulchre, whereinto they had entered. In Luke, we have represented three or more women, who see two men in shining garments inside of the sepulchre, whereinto the women had entered. In John, we have represented one woman who, not entering into the sepulchre, but stooping and looking in, sees two angels in shining garments, one at the head and the other at the foot of where the body of Jesus had lain.

Also, the visions of Jesus by the women are represented as different. The scene in Matthew, where Jesus meets the two Marys on their return from the sepulchre to bring the disciples word, and where

* The word translated "clothes" in these connections is, in the original, "bandages."

they take him by the feet and worship him, is quite different from this in John where he forbids Mary Magdalene touching him. It is merely mentioned in Mark that he appeared first to Mary Magdalene. And in Luke, Christ's appearing to Mary or to any of the women after his resurrection is not mentioned. The reader cannot fail to see how very different these representations of the resurrection are so far as we have yet reviewed them, whether they be literal or figurative, in whichever light his reason and conscience now allow him to view them.

In Matthew alone it is mentioned that when the two women were returning from the sepulchre to bring the disciples word of the resurrection, the soldiers that had been watching at the sepulchre came into the city, and told the chief priests all the things that were done: and that when they had taken counsel with the elders they gave large money to the soldiers, saying: "Say ye,—His disciples came by night and stole him while we slept.* And if this come to the Governor's ears we will persuade him and secure you. So they took the money and did as they taught, and this saying is commonly reported among the Jews until this day." Would it not seem strange to some that this circumstance, so important for proof of the resurrection, is not mentioned in any other narrative of it, especially in that of John, the ascribed writer of the fourth Gospel, who is represented to us by Bible biographers to be the same with the beloved disciple mentioned in that narrative as one of those that came early to the sepulchre on the resurrection morn? But it will be noticed that the act of sealing the stone and setting the watch over the sepulchre is mentioned only in Matthew; and here, though it may seem no little strange how he could have been an eye and ear-witness of this transaction, which he would have to be if his narrative set forth a literal representation, we find the writer setting forth the precise words in which the chief priests address the "watch" when they are bribing them. It also does not appear very likely that the priests would have dared to tamper with Roman soldiers and officers in the manner here represented; it is inconsistent, at least, with the proverbially strict discipline of the Roman legions; and to have used such language to them in relation to the Governor as they are represented to have done would be quite unsafe. True, they might have given them some money in the way of gift rather than reward, but as the representation here is it certainly looks more plausible than probable, and more allegoric than either.

In Mark it is mentioned that after he had appeared to Mary Magdalene on the resurrection morn he appeared in another form to two of them as they went into the country; and they went and told

* In every reference to the resurrection of Jesus in the Acts of the Apostles by Sts. Peter and Paul it is claimed that God raised him from the dead. See Acts II., 24; III., 15, 26; V., 30; XIII., 30, 33; XVII., 31. But how the resurrection of the body of the crucified Savior was effected is nowhere any farther explained.

it to the rest, but the latter were incredulous. And in Luke it is related that as two of the disciples were going into the country to a village called Emmaus on the day of the resurrection, and conversing together concerning the things that had happened, that Jesus himself joined company and walked and conversed with them unrecognized; but that he becomes known to them as he sits with them at supper; whereupon he vanishes immediately out of their sight. They having returned to Jerusalem the same evening, find the eleven assembled together, and they that were with them saying; The Lord is risen indeed, and hath appeared to Simon. And they related to them their experience on the way, and how Christ was recognized by them as they sat at supper. Does it not seem strange to some that this vision is not mentioned in either of the other Gospels, say, in Matthew or John, if it be true, as some Bible biographers represent, that these two were reckoned among the eleven disciples, and that the latter was one of the witnesses of the resurrection himself? It is reasonable to suppose that they who are upon the scene of an action should be likely to know more about it than those who are far distant from it, entire strangers to it, as the writer of this narrative, if of literal interpretation, must have been. But what plainly shows the character of the composition is this, that the writer, who as we see, must have been an entire stranger to the scene, considered as literal, represents the many turned conversations between the two disciples and Christ in the *oratio directa*, that is, he represents the precise words which they spoke to each other during their whole interview, both on the way and in the house. The question will of course suggest itself to any unprejudiced mind: How could he possibly do so truly if he were not an eye and ear witness of it? And even so he would require to be a considerably good reporter. It is nothing wonderful for a man at any time or place, day or night, to have a vision, especially if his mind be susceptible of such impressions; yea, and it is not contrary to experience that several persons may be impressed with the same idea at the same time. But this allegorical representation will doubtless be rightly interpreted by true Christian ministers, who will exercise a sober scholarly discernment in distinguishing allegory from history, and in showing its application to the true Christian life. That vision of Christ to the two going into the country mentioned in Mark, may be merely an epitome of this long narrative in Luke: for it is hardly circumstantial and elaborate enough to be called of itself an allegory; or, and which appears as likely, it may be the short account of a vision, out of which the representation in Luke has been elaborated. According to John, on the evening of the day of the resurrection, when the doors were shut where the disciples

were assembled, for fear of the Jews, Jesus appeared in their midst, and said: Peace be unto you. And having so said he showed them his hands and his side. They being glad at seeing him he says again: Peace be unto you; as my Father hath sent me even so send I you; and having thus spoken he breathed on them and says: Receive ye the Holy Spirit, &c.

But it proceeds to say that Thomas, one of the twelve, was not with them when Jesus appeared, &c., and that in an eight days after this the disciples were again assembled, and Thomas with them, when Jesus appears among them, and identifies himself satisfactorily to Thomas. The representation of the interview in the closed room on the evening of the resurrection day is made out considerably different in Luke. According to this narrative the two disciples, on their return from Emmaus, find the eleven disciples gathered together, and as they relate to them the experience of their journey, Jesus appears in their midst and says: Peace be unto you, &c. This interview, then, recorded in Luke as happening on the return of the disciples from Emmaus on the evening of the resurrection day, must mean the same as that recorded in John as happening on the evening of the same day. There is this discrepancy, however, in those two narratives of this first interview with the risen Christ in the closed room, that while the two disciples on their return from Emmaus, according to Luke, found the eleven gathered together, and others with them, to whom they are relating the experience of their journey, when Jesus appears among them; in John it is asserted that Thomas was not present at that interview, without whom the number of the eleven apostles could not have been there. Further, while in John he shows them his hands and his side; in Luke he shows them his hands and his feet. In John he twice utters the expression: Peace be unto you; in Luke only once; upon which, according to Luke, they are terrified and affrighted, supposing they had seen a spirit; but according to John they are glad when they saw the Lord. In Luke he asks: Have ye here any meat? And they give him a piece of a broiled fish and of an honeycomb, which he eats before them; in John mention is not made of this. In John he breathed on them, and said to them: Receive ye the Holy Spirit; whosesoever sins ye remit they are remitted unto them, and whosesoever sins ye retain they are retained, nothing of which is mentioned in Luke. In Luke, after he has eaten the fish and the honeycomb, he expounds to them the Scriptures concerning himself, and opens their understanding that they may understand the Scripture fulfilled in him, nothing of which is mentioned in John. In John he sends his disciples even as his Father had sent him; in Luke this is not mentioned. In Luke

he tells them that he will send upon them the promise of his Father, and to tarry in Jerusalem until they should be endued with power from on high; in John nothing is said of this. These are represented to us as two different accounts of the same interview of the risen Jesus with his disciples in the closed room; but we cannot discover much that is alike in the two representations; indeed they are so dissimilar as to appear like different interviews.

The interview of the risen Christ with the eleven, recorded in Mark, is different from either of the foregoing. In this He is represented as appearing to the eleven as they sit at meat (or together), and upbraiding them with their incredulousness and hardness of heart, because they believed not them that had seen Him after He was risen. "And he said to them: Go ye into all the world, and preach the gospel to every creature. He that believeth and is baptized shall be saved; but he that believeth not shall be condemned. And these signs (often translated miracles) shall follow them that believe: In my name they shall cast out devils; they shall speak with new tongues; they shall take up serpents; and if they drink any deadly thing it shall not hurt them; they shall lay hands on the sick, and they shall recover." It is seen that there is nothing in common in this interview with that recorded in Luke or that in John, only that it was with the eleven apostles as they sat together. He sends them into all the world to preach the gospel to every creature; he says that he that believeth and is baptized shall be saved, and he that believeth not shall be condemned; he tells them that certain signs shall attend upon those that believe, &c., none of which things are recorded in the narratives in the other Gospels; and does it not to some appear strangest of all that in Matthew no mention is made of any of these interviews with the disciples in the closed room, or as they sit together; although the eleven are represented as being present, and Matthew is reckoned one of the eleven? If the writer of the first Gospel were present at these interviews, one would naturally think he would not be at all likely to have omitted all mention of them in his narrative. Is not his assumed presence there, his reputed authorship of the first Gospel, and his omission of all mention of them unmistakeable evidence of the unliteral character of the four narratives? not to speak of the historical inconsistencies among themselves of these narratives, which are given of the interview. But instead of the writer of the first Gospel taking us into the closed room, and showing us what took place there in the interviews with the risen Jesus, he takes us away from the scenes of Judæa and from the streets of Jerusalem into a mountain of Galilee, after showing us how that the soldiers were bribed to keep the secret of the stealing

of Christ's body by the disciples. Acc. to Matthew "the eleven disciples went away into Galilee into a mountain, where Jesus had appointed them. And when they saw him they worshipped him, but some doubted. And Jesus spake to them saying: All power is given unto me in heaven and earth. Go ye therefore and teach all nations, baptizing them into the name of the Father, and of the Son, and of the Holy Spirit, &c." This interview, as represented by Matthew upon the mountain of Galilee, is not mentioned in either of the other Gospels; that which corresponds most nearly to it is in Mark: "Go ye into all the world, and preach the gospel to every creature, &c." But the scenes of these interviews are represented as different, the latter being a room; the wording, too, of the narratives is different, as well as most of the ideas they respectively convey; and if the writer of the fourth Gospel were one of the eleven disciples, as he is considered to have been, would he not be likely to have mentioned this interview on the Galilean mountain, for it is said in Matthew, the eleven disciples were there present with Christ when he gave them their commission to teach, and baptize all nations, &c., not a word of which is mentioned in John.

To the second interview between the risen Jesus and his disciples in the closed room, which is represented as taking place in eight days after the resurrection, and which appears to relate altogether to the removal of the incredulity of Thomas, as according to John, we have nothing corresponding in any of the other Gospels; but evidently this second interview is so placed in accordance with the design, and a filling out of the allegorical idea. Matthew leaves us with Christ upon the mountain of Galilee, but does not speak of his ascending to heaven. In Mark he is represented as being received up into heaven (it does not say from where) to sit on the right hand of God: in Luke as being received up from Bethany; and in the first chapter of the Acts it implies this ascent to have taken place from the Mount of Olives. All these ascents, of course, are designed to prefigure the elevation of humanity morally and spiritually by the doctrines of the Gospel of truth.

John's narrative now takes us into Galilee with the risen Jesus, but not to the same scene as that to which Matthew took us. While Matthew took us up on a mountain John takes us to the lake of Tiberias.

The main subject continued.

According to John, ch. XXI.: "After these things (that is, after the two interviews with the disciples in the closed room at Jerusalem &c.) Jesus showed himself again to the disciples at the Sea of Tibe-

rias; and in this manner showed he (himself). There were together Simon Peter and Thomas, called Didimus, and Nathaniel, of Cana of Galilee, and the sons of Zebedee, and two other of his disciples. Simon Peter saith unto them: I go a fishing; they say unto him: We also go with thee. They went forth and entered into a ship immediately, and that night they caught nothing. But when the morning was now come, Jesus stood on the shore; but the disciples knew not that it was Jesus. Then Jesus saith unto them: Children, have ye any meat? They answered him: No. And he said unto them: Cast the net on the right side of the ship, and ye shall find. They cast therefore, and now they were not able to draw it for the multitude of fishes. Therefore that disciple whom Jesus loved, saith unto Peter: It is the Lord. Now when Simon Peter heard that it was the Lord, he girt his fisher's coat about him (for he was naked), and did cast himself into the sea. And the other disciples came in a little ship (for they were not far from the land, but as it were two hundred cubits) dragging the net with fishes. As soon as they were come to land they saw a fire of coals there, and fish laid thereon and bread. Jesus saith unto them: Bring of the fish which ye have now caught. Simon Peter went up and drew the net to land, full of great fishes, an hundred and fifty and three, and for all there were so many, yet was not the net broken. Jesus saith unto them: Come and dine. And none of the disciples durst ask him: who art thou? knowing that it was the Lord. Jesus then cometh, and taketh bread, and giveth them, and fish likewise. This is now the third time that Jesus showed himself to his disciples after that he was risen from the dead. So when they had dined, Jesus said to Simon Peter: Simon, son of Jonas, lovest thou me more than these? He saith unto him: Yea, Lord; thou knowest that I love thee. He saith unto him: Feed my lambs. He saith to him again the second time: Simon, son of Jonas, lovest thou me? He saith unto him: Yea, Lord; thou knowest that I love thee. He saith unto him: Feed my sheep. He saith unto him the third time: Simon, son of Jonas, lovest thou me? Peter was grieved because he said to him the third time, Lovest thou me? And he said unto him: Lord, thou knowest all things? thou knowest that I love thee. Jesus saith unto him: Feed my sheep. Verily, verily, I say unto thee, when thou wast young thou girdedst thyself, and walkedst whither thou wouldest; but when thou shalt be old, thou shalt stretch forth thy hands and another shall gird thee, and carry thee whither thou wouldest not. This spake he, signifying by what death he should glorify God. And when he had spoken this he saith unto him: Follow me. Then Peter, turning about, seeth the disciple whom Jesus loved following,

who also leaned on his breast at supper, and said: Lord, which is he that betrayeth thee? Peter seeing him, saith to Jesus: Lord, and what shall this man do? Jesus saith unto him: If I will that he tarry till I come, what is that to thee; follow thou me. Then went this saying abroad among the brethren, that that disciple should not die; yet Jesus said not unto him, he shall not die; but, if I will that he tarry till I come, what is that to thee? This is the disciple which testifieth these things and wrote these things, and we know that his testimony is true. And there are also many other things which Jesus did, the which if they should be written every one, I suppose that even the world itself could not contain the books that should be written."

Remarks on the Preceding.

This chapter of John is altogether taken up with the account of the miraculous draught of fishes, which we have reviewed before under the head of the miracles; and with the conversation represented to have accompanied and followed it between the risen Jesus and his disciples; and the scene of this representation is on the Lake of Tiberias or the Sea of Galilee, and on its shore. This representation is different from any we find in any of the other Gospels. We have shown before, with respect to the miraculous draught of fishes, that it is a visionary or allegorical representation; and it is at once seen that the conversation which takes place between Christ and Peter, in which the beloved disciple is at the end incidentally mentioned, forms part of this representation. The question, Lovest thou me? being put three times to Peter, would indicate the fallibility, or liability to fall from the truth, of the most ardent and enthusiastic professors of it. And the charge, Feed my lambs, Feed my sheep, repeated three times, would indicate the obligation which the professors of the truth are under to God to adhere to his cause in all circumstances, and to be active and vigilant in the advancement of the cause of truth and righteousness amid evil as well as good report. The question concerning the beloved disciple, Lord, this man, what shall he do? would indicate that Christians are likely to be often too anxious as to what course their neighbor Christians take, to the neglect of their own duties. And the answers to this question, ch. XXI., v. 22, that the possessors and professors of God's truth should not be so anxious as to what other professors might do as to be good and do good themselves, to be eternally active and earnest themselves in upholding and promoting the cause of godliness in the world.

What follows from our Review of the Gospels, and from what we gather concerning them from other Sources.

1. That these Gospels as they now exist in the original Greek have in the main a symbolical interpretation rather than literal; that they have none the less a real signification, and that rightly interpreted they are to be received as the gift of God.*

2. That the four Gospels are evidently a work of design, the four constituting one whole, neither being sufficient in the mind of the author or authors without the others; that the setting forth symbolically Jesus Christ as an exemplar and Saviour, a lawgiver and teacher to mankind, is their principal design; that their very conception teaches the possibility of man's attaining to great spiritual perfection; and that they teach unmistakably that Jesus Christ is the Son of God.†

3. That they represent symbolically twelve apostles holding their respective positions, or representing their different types of character, about the central head of the Christian Kingdom, Jesus Christ, after the similitude of the twelve sons of Jacob about their patriarchal father, or of the twelve tribes about their king in the Israelitish kingdom.

4. That the idea of Christianity, as a religious system resulting from, and a substitute for the Mosaic system of the Jews, originated with the ministry of John, called the Baptist, who preached essentially the doctrines which Christ in the Gospels also preached, namely, baptism and repentance for the remission of past sins, and the necessity of living a life of active godliness for the future. Baptism was symbolical to teach human beings what they really were before it, and which they might come to understand themselves to be by the proper application of the symbol. We do not learn precisely what was the formula of words John made use of in his administration of baptism, but it may have been that indicated in the 19th verse of the last chapter of the Gospel according to Matthew; and it is plain that the being baptized into the name of the Father, Son, and Holy Spirit is meant at least to teach the eternal sonship of Christ,‡ which

---

* The design of the Gospels is not to deceive, as might be inferred from the tone of some Biblical critics, eminent scholars indeed, who, because they discovered the Gospels to be unhistorical, cast them aside as having no meaning, and did not try to discover that *simple* allegoric meaning wherein their Unity consists, that hidden truth which, understood, is designed for application to real life.

† See also 1st Epistle of John, ch. III., verses 1, 2.

‡ Wherever in this book we speak of the Trinity we mean that the proper and New Testament sense of the Trinity is Jesus Christ or man. When, therefore, it is understood that the Trinity properly understood means man, it will not be wondered at if the worship of the Trinity be not actually inculcated in this book. We do not pronounce, however, when we hear one

the illustration with respect to the Creator and Cosmos in the First Part of our work will make more clear. And they who had submitted themselves to baptism, repentance, and the new life of active godliness in the perfection of holiness and righteousness to which they had attained were they or *he* that should come after John, and of whom John was the forerunner. Thus Christ was not only one, but also many; not only a part, but also the whole of those admitted into the Kingdom of God in the way prescribed, and living therein in the manner ordained they should live; and thus also it will not appear improbable that there was one prominent among the primitive Christians who was crucified, and whose name was Jesus, afterwards called the Christ.* See also page 91.

5. That it is probable the Gospels were not systematized into the form in which we now have them in the Greek before the latter part of the Second Century, for till the last quarter of the Second Century we do not meet in the writings of the early christian Fathers any verbal citation which we can suspect to be from the Gospels; and no express verbal citation is found in the writings of that early period from the other books of the New Testament;† and that it is most probable these Gospels were elaborated into their present form in the Greek language by allegoric or symbolic representation from a basis or nucleus of tradition principally written of the primitive Christians.‡

---

praying to the Deity under the names of Father, Son and Holy Spirit, that such an one conceives an object of worship in the form of man or in any other form. This is best known to the person's self; but to worship an object in any form is dishonoring and displeasing to the Deity.

* Modern research has brought to light the following curious relic:

Sentence rendered by Pontius Pilate, acting governor of Lower Galilee, stating that Jesus of Nazareth shall die on the cross. — In the year seventeen of the emperor, Tiberius Cæsar, and the 24th day of March, in the city of the holy Jerusalem, Annas and Caiaphas being high priests, sacrificators of the people of God; Pontius Pilate, governor of Lower Galilee, sitting in the presidential chair of the Praetory, condemns Jesus of Nazareth to die on the cross between two thieves, the great and notorious evidence of the people saying: 1. Jesus is a seducer. 2. He is seditious. 3. He is an enemy to the law. 4. He calls himself falsely the son of God. 5. He calls himself falsely the King of Israel. 6. He entered the Temple followed by a multitude bearing palm branches in their hands. Orders the first centurion, Quilius Cornelius, to lead him to the place of execution. Forbids any person whomsoever, either poor or rich, to oppose the death of Jesus. The witnesses who signed the condemnation of Jesus are: 1. Daniel, Rabboni, a Pharisee. 2. Joannes Rorobable. 3. Raphael, Rabboni. 4. Capet, a citizen. Jesus shall go out of the city of Jerusalem by the gate Struennus.

The above sentence was engraved on a copper plate on one side of which was written: "A similar plate is sent to each tribe." It is said the original was in Hebrew, and that the French translation was made by the Commissioners of Arts of the French armies, who, in 1850, discovered the plate in an antique vase of white marble, while excavating in the ancient city of Aquilla in the kingdom of Naples.

† See, for example, Smith's Bible Dictionary, unabridged, Art. New Testament, History of.

‡ It is noticeable that Bishop Butler in his "Analogy," as well as Mr. Locke, places reason above revelation, the judge of it as of all other things. In speaking of the objections made to the evidences of Christianity (Analogy, Part II., ch. 3) he says: "I express myself with caution lest I should be mistaken to vilify reason, which is indeed the only faculty we have wherewith to judge concerning anything, even revelation itself; or be misunderstood to assert that a supposed revelation cannot be proved false from internal characters. For it may contain clear immoralities or contradictions: and either of these would prove it false." We may remark that because a composition is proved to be unliteral it is not thus shown to be not allegorical;

6. That, notwithstanding an examination of the present Gospels by comparison with each other according to the ordinary rules of language might by some be thought not to warrant the conclusion in whole or in part, it is probable not only that in connection with the founding of Christianity a man named Jesus was crucificed, but that, whether or not born at Bethlehem, he during his life regarded Nazareth as his residence; that in due time he was baptized by John; that he claimed to be the Jewish Messiah, and after John's death was regarded as a leader among the baptists; that this gained for him the enmity of the ruling powers, (for Josephus says it was because of the great influence which John had acquired over the people, and through apprehension lest he might estrange them from himself that Herod had him imprisoned; and, of course, the claim of Jesus to the Messiahship would be construed as treason against Cæsar;) and, according to the commonly received chronology, we find Jesus to correspond more exactly with the time of Daniel IX., 24–27, and with the other prophecies — some of them vague — which are claimed as relating to the Messiah, than any other character in history. Illustrations drawn from the state of an earthly monarch in the education of a Christian republic are inappropriate, for the kingdom of Christ is not of this world, and the characters of Christ plainly teach the universal brotherhood of man.

7. That the ideal Christ of the Gospels is meant to prefigure the perfection of character attainable by man from the practice of self-denial and active godliness inculcated in the Gospels; and perfection in all its bearings, ramifications, and aspects, so far as possible to attain or manifest in the character of human beings, in connection with firm faith in the goodness of God and his acceptance in our behalf of the self-sacrifice of Jesus, should principally be held forth as a surety for salvation.

8. That the Gospels though mainly and as to their main subject allegorical have nevertheless a large amount that is literal; that whether of literal or figurative interpretation their language has a real meaning; and that with respect to the Code of Moral Precepts which they enunciate for the government of mankind, and for purity of doctrine when rightly interpreted, the gospel system is superior to any other religious system of the past or of the present of which we have knowledge.

A Short Review of the Book Of the Acts of the Apostles.

The book called the Acts of the Apostles is ascribed to Luke, the

for the parts of it which contradict each other and prove it unliteral may at the same time be, as in the case of the Gospels and the Acts they are, different phases of the same allegoric representation, and having at the same time a *real* meaning.

traditional writer of the third Gospel. The identity of the writer of both books would appear from their great similarity in style and idiom, and the usage in both of particular words and compound forms. But it may appear somewhat surprising that notices of the author are so entirely wanting, not only in the book itself, but also in the Epistles of Paul, whom he is represented by early Christian writers to have accompanied for some time in his missionary travels. However this may be, it is pretty certain that the author was not a present witness of most of what is related in the book of the Acts, if we consider it as a real history. The production of the work in its present form, it is probable, belongs to the same date as that of the canon of the Gospels.

The book of the Acts first appears to be directly quoted from in the Epistle of the Churches of Lyons and Vienna to those of Asia and Phrygia, 177 A. D., or in the last quarter of the second century; then it is repeatedly and expressly quoted from by Irenæus, Clement of Alexandria, Tertullian, and so downwards. It was rejected by the Marcionites of the third century and the Manichæans of century fourth, as contradicting some of their peculiar doctrines.

The text of the Acts is found to be very full of various readings. To this it is thought by critical examiners several causes may have contributed. In the many backward references to Gospel narratives, and the many anticipations of statements and expressions occurring in the Epistles, temptations abounded for correctors in after times to try their hand at assimilating, and, as they thought, reconciling the various accounts. In places where ecclesiastical order or usage was in question, insertions or omissions were made to suit the habits and views of the Church in after ages. Where the narrative related facts, any act or word apparently unworthy of the apostolic agent was modified for the sake of decorum. Where Paul repeats to different audiences, or the writer himself narrates the details of his marvellous conversion, the one passage was pieced from the other so as to produce verbal accordance. There appear in this book an unusual number of these interpolations of considerable length which are found in the Codex Beza (D) and its cognates. Borneman, a critic of some eminence, believes that the text of the Acts originally contained them all, and has been abbreviated by correctors; and he has published an edition of it in which they are inserted in full. But whether or not they pertained to the original the greater part of them are unmeaning and absurd.*

If we examine the first chapter of the Acts we shall find that it

---

See, also, Hist. of Book of Acts in Smith's B.D.

gives us information which we do not find in any other place. Verses 1–12 represent to us the Ascension of Christ from Mount Olivet, a Sabbath-day's journey from Jerusalem, which was in measure about 2000 paces, or about six-eighths of a mile; while in the fiftieth verse of the last chapter of the Gospel acc. to Luke, the place from which he ascended is said to be Bethany, which, acc. to John XI. 18, was fifteen furlongs, nearly two miles, from Jerusalem. The writer, also, though he was not a present witness of what he here relates * represents to us the precise words in which the disciples ask Jesus: "Lord, wilt thou at this time restore again the kingdom to Israel?" And of his answer to them: "It is not for you to know the times or the seasons which the Father hath put in his own power, &c."—Verses 6–8. And the precise words in which the two angels address the assembled disciples as they stand and gaze upon the ascending Jesus, verses 10, 11. And the precise words of the speech of Peter concerning the fall of Judas and the choosing of an apostle in his place, verses 15–23. And the precise words of their prayer to the Lord before casting the lots to choose the new apostle, verses 24–26. And in verse 18 it informs us that Judas purchased a field with the reward of his iniquity, viz., with the thirty pieces of silver which he obtained for his services as traitor, and that falling headlong he burst asunder in the midst, and his bowels gushed out; all of which is differentiated by the account in Matthew of his giving the thirty pieces of silver again to the priests, wherewith they buy the potter's field, and his going and hanging himself, Matthew XXVII. 3–10.† Besides, how would all these speeches in all their turns have been likely to have been preserved to us *verbatim*, since the author or compiler could have come by them only by tradition? From the apparent historical inconsistencies and the inherent improbability of their having a literal interpretation we could not decide this chapter as historical, but would conclude it allegorical, and designed to supplement the Gospels, especially with reference to the idea of Christ.

Ch. II. In chapter II we have also represented to us what we do not find in any other place: Verses 1–14 represent the descent of the Holy Spirit, and the speaking of the apostles in different

* The reader may remember that we are examining this, as we did the Gospel, in the light of modern opinion, that is, supposing for the purpose of illustration this to be real history, and seeing how it will stand on that ground.

† It might be possible to effect a partial reconciliation between these two accounts, for a moment considered historical, by supposing that Judas may have tacitly deputed the priests to buy the field on his account, and, that having hung himself with a too slender rope he fell alive from his self-constructed gallows; but that his death was no less effectually accomplished from the bursting of his bowels by the fall.

languages which they had never learned, and the observers mocking and saying: "These men are full of new wine, &c.," to which in reply Peter makes a long speech, verses 14–37, which is reproduced to us *verbatim*. Also, we are given the precise words in which the multitude, greatly affected by what Peter had said, say to the apostles: "Men and brethren, what shall we do?" And the precise words in which Peter answers them: "Repent, and be baptized, every one of you, in the name of Jesus Christ, &c.," verses 37–41. As before remarked it is difficult to understand how we could have all these speeches preserved to us *verbatim*, especially when the author to whom the book is ascribed could have derived them at the best only by tradition, written or oral: and as for the miraculous speaking with tongues on the day of Pentecost the writer could have learned of that also only by tradition; and we have determined before that to prove the fact of a miracle having been wrought, it requires the evidence of two or more eye and ear-witnesses of it who will not contradict each other in their relation of it. It may be remarked, however, that the Christian Church, that is, the priesthood of it, has always claimed the power of working certain kinds of miracles; of producing vision and prophecy; of expelling demons of every kind and variety; of healing the sick; and, in some cases, of raising the dead: (although of all the accounts we have in the writings of the early Christian Fathers of the raising of the dead we never meet with an author who witnessed himself what he relates.) The divine inspiration, whether it was conveyed in the form of a waking or sleeping vision, is described by the Fathers as a favor very liberally bestowed on all ranks of the faithful. When their devout minds were sufficiently prepared by a course of prayer, of fasting, and of vigils to receive the extraordinary impulse, they were transported out of their senses, and delivered in ecstasy what was inspired, being mere organs of the Holy Spirit, just as a pipe or flute is of him who blows into it. The design of the visions seems for the most part to have been either to disclose the future history or to guide the present administration of the Church. The gift of tongues was also one of the powers which the Christian Church claimed to possess; although it is stated or intimated in Irenæus, one of the earliest of the Christian Fathers, that while the knowledge of foreign languages was frequently communicated to his contemporaries he was himself left to struggle with the difficulties of a barbarous dialect, while preaching the gospel to the inhabitants of Gaul. It is observed by Dr. Middleton in his "Free Inquiry" concerning the miracles, that as the pretension to the gift of tongues was of all others the most difficult to support by art, it was the

soonest given up. But while the Greek and Roman Churches yet, we believe, claim the power of performing certain kinds of miracles, most Protestant divines now without reluctance confine miracles to the time of the apostles. This representation of the descent of the Spirit and of the speaking with tongues might probably have arisen from a vision which some of those prominent among the early Christians had, whether sleeping or awake; and being in ecstasies over it they would be likely to call forth the jeers and ridicule of their neighbor Jews; upon which one of their number, as Peter, would have to say something in self-defence and in confirmation of some or one of them having had the vision of the Spirit's descent upon them, and of their speaking in different languages with which they were unacquainted. This then would be a foundation for a representation such as we have in the second chapter of the Acts, in which it is seen the design is to have it supplementary to and confirmatory of the Gospels. It is plain, however, that in the representation of the speech of Peter, as well as in all such as we shall meet with in this book, the design is to set forth to our view a particular man, Jesus Christ, as a man however, who lived and died, and was raised from the dead by the power of God, although a consideration of the four gospels compels us to conclude the New Testament representation of Christ to be on the whole rather of symbolical than of literal signification, and that consequently the things narrated as to his life, death, resurrection, &c., do bear a corresponding and yet a real interpretation.

The two most prominent characters that are represented and that represent in this part of the Acts of the Apostles are Peter and John. These two are reckoned among the *twelve apostles*, and these last being typically or symbolically rather than literally represented, the things said or related concerning them do bear a corresponding and yet a real interpretation. This explanation holds good as to the twelve apostles, but we should not allow ourselves to doubt but that there were many Peters, and Johns, Bartholomews, Matthews &c., among the Primitive Christians who for probity and active godliness might well be called apostles.*

The representations then in the second chapter of the Acts are designed to be supplementary to and confirmatory of the Gospel idea of Christ. The representation, however, of a human being attempting to converse with another in a language he has never learned and does not at all understand, may appear to experience unreasonable, and yet be accepted by faith.

Ch. III. Chapter third also gives us information which we do not find mentioned in any other place, or confirmed by any other

* That there existed for a short time at the origination of Christianity a band of twelve men called disciples or apostles, who received instruction from and acknowledged as their Superior Him who was afterwards crucified, is not improbable. See page 221, Nos. 3 and 4.

evidence. Verses 1–12 represent to us the healing of a cripple by Peter and John. And verses 4–7 represent *verbatim*, the words which Peter addresses to him. The thought may perhaps strike the reader why it was not some other or others of the apostles than Peter and John, say Matthew, or Simon Zelotes, or Andrew, or Thaddeus, or Bartholomew, or some other of them, than these particular two that were represented in the story as healing this man? The thought may also suggest what appears the answer, that the representation is symbolical, and that the immortal duo, Peter and John, are symbolic characters, the things related concerning whom have yet a real signification. The good and true Christian ministers and others will, doubtless, interest themselves in getting out the true meaning of the allegory in all its phases, and in truly applying it. In the latter part of this chapter, verses 12–26, we have the discourse given *verbatim*, which Peter is represented to deliver on this occasion. This, discourse, is designed to be supplementary to, and confirmatory of the Gospel representations, and to be helpful in the upbuilding of the Christian system, and the advancement of the Christian Church.

Ch. IV. Chapter four is simply the narrative continued, which was begun in the preceding chapter. Verses 1–7 represent the arrest of Peter and John, and their confinement by the authorities of the temple for disseminating the new doctrines. Verse 7 represents the precise words which the priests address to Peter and John on their arraignment before them; and 8–13, the reply of Peter, *verbatim*; and what may appear more remarkable still to those who have been accustomed to believe in the literality of all these representations, is this, that in verses 15–18 we have represented the precise words which the priests and the other members of the council used in conference with each other. In verses 19–21 are represented the precise words of Peter and John in answer to their injunctions; and in verses 24–31 is represented, *verbatim*, the prayer which they, with their companions, address to God, on having been forbidden by the council to promulgate their doctrines. Verse 31 informs us of the place having been shaken where they were assembled praying, which shaking may have been present to some of the early disciples, as is often experienced in a dream: or it may be a phase of the allegory. Verses 32 to the end, inform us of the filial relationship which existed among the hopeful disciples; and represent to us the beginning of the Christian commonwealth, when the disciples sold their possessions and goods, and came and deposited the price of them in the hands of the apostles; which, indeed, would appear to have put great power into the apostles' hands, a power and privilege which

has, to a considerable extent, been since claimed and in many cases barbarously exercised by the priests or modern apostles of the nominal Christian Church. There may have been some circumstances in connection with the early Christians at Jerusalem, which gave rise to part of the representation in this chapter; say, for example, some of them may have been so enthusiastic for the new faith, and have had such a good opinion of the integrity of their elders, as to make their goods common to all the professors, and to make the elders their trustees; but the main part of the narrative is allegorical, the design of it being still to be confirmatory of and supplementary to the narratives of the Gospels, and to assist in introducing a state of things which would tend to put great power into the hands of the Christian hierarchy.

Ch. V. The statements of this chapter also we do not find recorded in any other place or confirmed by any other authority. Verses 1–12 represent to us a scene which, having witnessed, we should certainly have to confess to have been most miraculous and tragical. Here we have Ananias, and Sapphira, his wife, represented to have fallen dead instantly because of their keeping back part of the price of their property, and not surrendering it all to the apostles; and their death happens in such a way that the impartial reader is at once disposed to conclude that if the representation be a literal one, Peter, by his ghostly power, must have killed them both. In verses 3–5 we have set forth the precise words which Peter addresses to Ananias. And in verses 8–10 we have the conversation *verbatim* which ensued between Peter and Sapphira, and resulted in the death of the latter. This representation is an allegory, and one of which the design, if it be not independent prophecy, might be thought to have been not the noblest; at the same time that it teaches, to the extent of one's fears, the danger of lying. Peter in the representation may stand for the priesthood of the Catholic Christian Church. The Church of Rome has always delighted to claim Peter for its founder; we will give it Peter to represent its hierarchy. The foreknowledge Peter is represented to have had of their keeping back part of the price may truly have predicated the power which the Christian hierarchy has wielded for many centuries over mankind in making men believe that they knew even the secret thoughts of their hearts, and enslaving not only their bodies, but their minds also. And the off-handed way in which he kills this pair of human beings for not giving up to him the whole price of their possessions (the representation having it that it was for their lying against the Holy Spirit, which every one can see would not be safe) would have predicated the omnipotence the priesthood of this Christian system would

assume, not only over the minds and bodies, but over the properties and possessions of their votaries. That such is the design of the piece there appears not the slightest doubt; for, behold, it goes on to say, verses 12–17: "And by the hands of the Apostles were many signs and wonders wrought among the people; and they were all with one accord in Solomon's porch." But mark what follows: "And of the rest durst no man join himself to them," that is, to the apostles, "but the people magnified them, &c." Truly here the priests perform great things, and are greatly exalted as symbolised by the apostles, and especially by Peter. Verses 17–29 represent to us the arrest and imprisonment of the apostles by the high priests and the Sadducees; and how the angel of the Lord delivers them out of the prison by night: and how they are found in the temple teaching the people in the morning; although it may not appear very probable that people should frequent the temple so early in the morning to be taught, or that men should be there teaching the people in the morning before the authorities of the temple were on the alert. Verse 20 represents *verbatim* the words of the delivering angel to the apostles; verse 23, the precise words spoken by the officers to the council on their return from the prison and not finding the apostolic prisoners there; verse 25, the precise words of the one who informs the council that they are standing in the temple teaching the people. Verse 28 represents the precise words of the high priest's address to the apostles on their being brought before him again; and verses 29–33, *verbatim*, the speech of Peter in response to him. Verses 34–40 represent *verbatim*, the oration of the counsellor Gamaliel in reference to the prisoners. Now if the honest enquirer will only ask himself how the writer of the book of Acts, an entire stranger to the scene here represented (supposing it for a moment to be literally understood,) could have known to give the precise words in the case of each speaker in the drama, he will doubtless conclude it to have been impossible for him to have done so. And if he considers that this information has been handed down to the writer of the book of Acts traditionally by some one who was present on the scene, still he cannot fail to see that there are some speeches here represented in the *direct oration* which no Christian witness present on the scene could be supposed to be able to learn, were he ever so desirous of doing so; as for instance what the officers say to the council on informing them that the prisoners had escaped;—and in some cases it is seen we have represented in the *direct oration* the speeches of the priests and counsellors in secret conclave;—such an enquirer will certainly conclude that the representation in the main cannot be of literal signification, although there may have been some circumstan-

ces connected with the primitive Christians which might have given rise to parts of the representation of this chapter, and out of which the whole might have been elaborated allegorically. The idea of an angel delivering men out of prison, except it be an human angel, who could do it, is to experience unknown but may be an object of faith. But if the design of the representation in the first part of the chapter is to magnify the Christian priesthood, the design of that of the latter part of it is to infuse into the Christians a strong faith in their doctrines; to inculcate a firm adherence to them in all circumstances and a steady persistence in their promulgation through evil and through good report. Both the former and the latter representations of this chapter have had their design eminently accomplished in the long-continued triumph of the Christian hierarchy, and in the steady advance of Christianity over all the opposition it encountered.

Ch. VI. In this chapter we have represented the advance of the Christian hierarchy in the apostles having appointed deacons or under-priests, who should have it as their chief business to care for the poor, and dispense to them food, while they give themselves wholly to prayer and spiritual things. Their power has been shown forth in the preceding chapter, their increase in effectual strength is shown in this; and like all great institutions we find this founded and cemented in blood, the blood of a martyred deacon named Stephen. The more satellites or attendants the great spiritual magnates, the heads of the Church, should have, the greater would become the effectual strength of their institution; and history shows that no institution, sacred or civil, ever wielded a more entire and effectual power than did the Christian hierarchy, especially as established at Constantinople and Rome, in the former place for nearly a dozen of centuries, and yet continued in the Greek Church, in the latter and throughout Roman Catholic Christendom, for sixteen or seventeen centuries. But doubtless the primitive Christians at Jerusalem may have found themselves in such circumstances as to necessitate their appointing a number of men to attend to the wants of the indigent, aside from those who were accounted elders or ministers of the doctrines and ordinances; and this may have given rise to the representation we are considering, and to the order of deacons in the Christian hierarcy. In verses 2–5, are represented to us the very words which the apostles address to the people concerning the choosing of the deacons, and in verses 11, 13, 14, we are given *verbatim* what the false witnesses said against Stephen.

Ch. VII. In this chapter we have the story of Stephen, continued. Verse 1 represents the precise terms of the high priest's

question to Stephen; and from verses 2–54 we have represented *verbatim* the long speech of Stephen, when on his trial. In verse 56 the precise words of his exclamation of seeing the Son of Man standing at the right hand of God; and in verse 60 those of his prayer to God, to lay not the sin of his death to the charge of his persecutors: all of which might teach the doctrine of entire self-denial for the cause of truth, even to death, and that without bearing any ill-will to one's persecutors. The early Christians in Judæa doubtless experienced persecution, even to death in some cases, for their principles, out of which is given to us the representation of Stephen: but the facility and fulness with which these speeches, especially that of Stephen, is given in the *oratio directa* would naturally incline one to suspect that much of this representation had been elaborated from the understanding of the author of this book, who was not himself a present witness of what he relates, considered as real: and that it has much the same design as that of the previous representations, that of supplementing and confirming the Gospel representations, and of teaching lessons of importance to the growing Christian Church. In one of the last verses of this chapter we are first introduced to young Saul, the persecutor.

Ch. VIII. This chapter represents to us the progress of the Christian Gospel through the instrumentality of Philip the deacon, of Peter and John; and of the growing power of the priesthood over the masses of the people, which last, as in the previous cases with respect to the priesthood, might be rather symbolical than literal. Verse 1 informs us that on account of the persecution which raged at Jerusalem, principally by the instrumentality of Saul, who is represented as displaying no modesty, but great cruelty in his proceedings against the infant Church, all the believers were scattered abroad throughout Judæa and Samaria, except the apostles. The thought will suggest itself to the candid enquirer: What would keep the twelve shepherds (here for a moment considering the narratives as literal) at Jerusalem in the midst of persecution, while all their flock had departed and were scattered abroad? One should suppose they must have been fond of being persecuted. Or would they rather have been in some safe place enjoying the abundance of goods which their credulous and good-natured followers had "laid at their feet," while the poor enthusiasts themselves were scattered abroad in indigence? Such a supposition we think would not be warranted with respect to the twelve Apostles, still there doubtless were prominent elders among the believers at Jerusalem to whom the latter entrusted the care of their goods, and who thought it their duty to remain in Jerusalem to guard their trust, even at the risk of their lives, while

the mass of the believers found it necessary to consult their personal safety by flight. Verses 6–9 tell us of the prodigies wrought by the deacon Philip, which corresponds so closely to some of the cases of the miracles of the Gospels, which we have already reviewed, that they will need no explanation here: "For unclean spirits, crying with a loud voice, came out of many that were possessed with them; and many taken with palsies, and that were lame, were healed." Verses 9–25 represent to us Simon, the sorcerer: v. 13, he believes, and is baptized, wondering at the miracles (lit., powers) and signs wrought by Philip. Verses 15–18 show us how the Holy Spirit is given to the converts through the imposition of the hands of Peter and John; converts who, although they had been baptized, had not yet experienced the Holy Spirit and its effects; and this event, with the scene which takes place between Peter and Simon, the sorcerer, on the latter offering the Apostles money for the power of imparting the Holy Spirit to whom he would, surely represents to us the power which would, in after times, be assumed and monopolized by the Catholic hierarchy, of conferring the gifts of the Holy Spirit, and performing miracles. If these converts, mentioned as not receiving the Holy Spirit till the laying on of the hands of Peter, had only known that they had in themselves, even individually, the principle of the Holy Spirit, which only needs to be developed in order for its influence to be experienced, they might not so anxiously have desired the exercise on their behalf of the ghostly powers of Peter. This principle of holiness every one has the power and privilege of developing for themselves by their living a life of entire godliness, which is the best result as to possessing the Holy Spirit they can attain to. Christians, moreover, always experience excellent results from the practice of assembling themselves together for the worship and praise of God, for the enlightenment and encouragement of each other, and by their mutual deliberation, counsel and support, the better to advance the cause of truth and holiness in the world. As we mentioned before, in the case of some of the miraculous representations of the Gospels, each holy, good, and God-fearing man has the power of communicating to others his own good influence, and thus of making them participate, to some degree, in his feelings, thoughts, and aspirations. And, doubtless, there were many such good men among the primitive Christians, men who understood what they were themselves and their powers, and what they could do. But in this representation is evidently symbolised the powers which the priesthood would assume to possess and exercise as distinct from the laity in the Christian system. Verses 26–40 represent to us the interview between Philip and the Ethiopian Eunuch which resulted

in the baptism of the latter, an experience which, were it that of any one now-a-days, we should be disposed to call romantic. Verses 19–25 represent the precise words which Simon the sorcerer addressed to the apostles, and those which in reply Peter spoke to him. In verses 26–30 are represented the exact words which the angel spoke to Philip: and in verses 30–39 those of the conversation between Philip and the Eunuch. When we enquire how all these conversations, given us in the *oratio directa* by a writer who was not himself a present witness of them, are likely to be of literal import, the thought naturally occurs to us that though there may have been some circumstances peculiar to the early Christians which gave rise to the narratives in this chapter, and which the writer of the book of Acts might have received traditionally, yet still that the representations of this chapter, taken as a whole, are allegorical, and designed to magnify the office of the priesthood of the Christian system.

Ch. IX. In this chapter we have represented the miraculous conversion of Saul of Tarsus to the Christian faith, and the healing of the paralytic, and the raising of a dead woman to life by Peter. We may notice to start with, that we have no other evidence of what is recorded in this chapter but this record itself, and that the writer of the book did not witness himself what he here relates. We have determined before on grounds which we think all will call reasonable that to prove the fact of a miracle, in the common acceptation of that term, having been wrought, it would require two or more present witnesses of it who would relate the circumstances of the miracle in much the same language, or in language in which they would not contradict each other. But the fact of us having no present witness of what is recorded in this chapter, unless it be the two accounts which Saul under the name of Paul, gives us of himself before the assembled Jews in Jerusalem, ch. XXII.; and before Herod Agrippa, ch. XXVI., prevents us from receiving it as of literal interpretation, so far at least as the accounts of the miracles are concerned. In verses 4–7, ch. IX., are given *verbatim* the words in which Saul is addressed by the voice of the Lord in the vision, and those of Saul in reply. According to this the voice says to him: Saul, Saul, why persecutest thou me? And he said: Who art thou Lord? And the Lord said: I am Jesus, whom thou persecutest; it is hard for thee to kick against the pricks. And he, trembling and astonished, said: Lord, what wilt thou have me to do? And the Lord said unto him: Arise, and go into the city, and it shall be told thee what thou must do. And the men who journeyed with him stood speechless, hearing a voice, but seeing no man." According to his account in ch. XXII.

the conversation is: "Saul, Saul, why persecutest thou me? And I answered: Who art thou, Lord? And he said unto me: I am Jesus of Nazareth, whom thou persecutest. And they that were with me saw indeed the light, and were afraid; but they heard not the voice of him that spake to me. And I said: What shall I do, Lord? And the Lord said unto me: Arise, and go into Damascus, and there it shall be told thee of all things which are appointed for thee to do." According to his speech before Agrippa, ch. XXVI., it is: "Saul, Saul, why persecutest thou me? It is hard for thee to kick against the pricks. And I said: Who art thou, Lord? And he said: I am Jesus whom thou persecutest. But rise and stand upon thy feet; for I have appeared unto thee for this purpose, to make thee a minister, and a witness, both of these things which thou hast seen, and of those things in the which I will appear unto thee, delivering thee from the people and from the Gentiles, unto whom now I send thee to open their eyes and to turn them from darkness to light, and from the power of Satan unto God; that they may receive forgiveness of sins, and inheritance among them which are sanctified by faith that is in me." These accounts, it is seen, are somewhat different; the first two differ from the third in that they represent Saul alone as falling to the ground; the third represents not only Saul, but all who journeyed with him as thus falling. And in the first it is said; "The men which journeyed with him, *stood* speechless, hearing a voice but seeing no man;" but in the second he says: "And they that were with me saw indeed the light and were afraid, but they heard not the voice of him that spake to me," which is plainly contradictory. According to the first, Saul, after experiencing this phenomena, is three days without sight: according to the second, he could not see for the glory of the light; being led by the hand of them that were with him, he came into Damascus; which might imply that the light had such a dazzling effect upon his eyes as to deprive him of clear vision for a time. In the third, nothing is said of his being rendered sightless. There is considerable difference in the three representations of the conversation which took place between Saul and the Lord in the vision, which each one can notice for one's self. Since this mutual conversation is given in the *direct oration* in the three accounts, and since it is not exactly the same in all as to the words, and their position in relation to each other in the sentences we cannot understand either one of them as exactly representing the circumstances of the conversion of Saul: and have to decide that if such an event happened it must have taken place in a way somewhat different from that represented in either one of these accounts.

According to ch. IX., 23–30, as well as ch. XXII., 15–18, Saul shortly after his conversion, would appear to have returned to Jerusalem; but in the Epistle to the Galatians, ch. I., 15–20, we learn that after his conversion, he went into Arabia preaching the Gospel, and did not return to Jerusalem for three years. If there is not here a contradiction in terms there fairly seems one implied, and it seems to have been the work of design by later hands than Saul's, for what purpose does not appear.

In verses 10–17, ch. IX., are given *verbatim*, the words of the conversation which took place between the angel in the vision and Ananias, in relation to Saul, and in verse 17 the precise words which Ananias speaks to Saul, on the occasion of his visiting him to restore him to sight and baptize him. Saul is represented in this ch. (IX.) as being the principal persecutor of the Christian sect, for it says, verse 31: "Then," that is, after Saul's conversion, "had the Churches rest throughout all Judæa and Galilee, and Samaria, and were edified; and, walking in the fear of the Lord and in the comfort of the Holy Spirit, were multiplied." This representation of the conversion of Saul, and the rest which ensued to the Christians upon it, might perhaps designate the ultimate triumph of the Church over its bitterest enemies and its most powerful opposers. And the course which Saul takes afterwards might indicate the zeal with which the opposers of Christianity, when converted to it, would in all circumstances uphold the doctrines of their newly espoused religion, and advance its cause. There seems, however, sufficient ground for concluding that an event took place in the early history of Christianity corresponding to, or identical with that given in the general representation of the conversion of Saul. It is not at all unreasonable or incredible that God, in answer to the earnest and faithful prayers of the persecuted infant Church; in mercy to the deluded fanatic himself; but most of all for the accomplishment of his own wise and eternal purposes, appeared in a vision of light, struck terror to the heart of the young man Saul, while on his bloodthirsty persecuting errand, effected a complete change in his callous and perverse heart, and in his religious opinions, and communicated to him His will to be obeyed by him in the future. It was the will of the Deity that Christianity should prevail. God did not have to come from any distance in order to appear to Saul, for the Deity is ever and everywhere present; and the words he addresses to Saul, in the vision, "I am Jesus whom thou persecutest," could have left no doubt on Saul's mind as to what his will and purpose were concerning the new sect. Not that the voice which came to Saul was necessarily that of Jesus, a man who had lived and died, but that that which was or was

to be the Gospel's idea of Jesus Christ was of God, and that it was his will that it should prevail. The eternal truth is that the name of God is not Jesus Christ in particular, or that of any man in particular: he could have made himself known to Saul by any other name that suited his purpose, or, if it so pleased him, he could have effected his purpose in Saul without thus communicating in words with him; but this is the way in which he pleased to effect his purpose, and thus not only exercised his mercy towards, but honored the humility and faith of the early Christian Church.* Still, if we, with our present experience, had happened to be with Saul at the time this event happened to him we might not have detected anything so very wonderful in it. We are not of those who believe that the young man Saul possessed a remarkably strong constitution of body or of mind; the influence which was brought to bear upon him stunned him, so that he appears to have fallen to the earth. There are many men now-a-days, we learn, who can exercise such a controlling influence over the mind or nervous system of others by their will as effectually to stun them, so that they may lose power of themselves and fall; and this controlling power must be the more effectual when there are a combination of minds set upon the stultifying of one. What should hinder us therefore from concluding that a number of strong-minded and intelligent men among the early Christians, men who perfectly understood themselves and their powers, and what they could effect, had banded themselves together and purposed with prayer to God, and an unwavering faith in his help, to bring their minds to bear upon the mind of Saul, and to communicate to his nervous system an electric shock as it were, at the same time that the grace of God would so affect his heart as to impress him with a realizing sense of the goodness and worthiness of the cause and sect he was persecuting. This is no more than what we may be allowed to believe a similar association of good intelligent Christian men may be the means in Gods hands of effecting to-day although it would be nothing less than presumption and impertinence in men to suppose they could do any such thing of themselves. It is not that any particular influence or spirit has necessarily to go from one to another in order to produce such an effect: but the effect produced is a change in the ever and everywhere present mind or spirit, and the revelation to the understanding is the indication of that present mind. However, let the manner of Saul's conversion have been ever so simple it would appear to have been a real conversion and productive of excellent effects in the after life of Saul for the Christian Church; just such a conversion as Christians believe to be genuine, and should wish to all their enemies.

* Jesus of Nazareth was a voluntary self-sacrifice for the Truth, in that he confessed he was the Son of God, which was a capital offense against the Jewish law. But the crime for which he was crucified by a Roman procurator and which authorized the superscription "The King of the Jews," appears plainly to have been that he claimed to be the Messiah or Jewish Prince,

We may remark that we possess no other account of the conversion of Saul, any more than of the miracles of Peter, than what the book of the Acts affords us: and as for this book, we have no further proof of its historical genuineness and authenticity than what two assumptions afford us, namely, that it was written by Luke, and that he was a companion of Paul in part of his missionary enterprises. True, the early Christian writers in the latter part of the second, and in the third centuries, mention the Acts of the Apostles, and quote from it; but it has been remarked before that notices of Luke, as the author, are entirely wanting, not only in this book but also in the Epistles ascribed to Paul. The name Luke is mentioned in three places in the New Testament, Coloss. IV. 14; 2d Timothy IV. 11; Philemon, v. 24; but it is not intimated that he is the writer of any book: though it does not appear improbable that he, or the same writer that produced the third Gospel, may have produced the book of the Acts which is probably built upon or elaborated from traditions written or oral, except the few chapters at the end of the book, from ch. XX., which are historical and were written by a personal observer. To continue our review of ch. IX.; verses 32-36 represent to us the healing of a palsied man by Peter; and in verse 34 we have represented the precise words which Peter spoke to him on that occasion. And verse 36 to the end of the chapter represent to us Peter raising Tabitha to life, v. 40, giving the precise words he spoke to her in performing the resurrection. This seems certainly to indicate the peculiar powers which the Christian priesthood would assume and pretend to exercise, as symbolized by Peter, and eminently fulfilled in the pretended miracles of the so-called Christian hierarchy during many centuries. In all our experiences of mankind from history or observation we never met with a man who writes or says that he performed himself, or saw performed by another, the act of the raising from the dead a human being. But it is reasonable to suppose that a change for the better might be effected in a person not quite dead, but who appeared so from extreme weakness and exhaustion of the physical and mental faculties, by certain good and holy men, possessing strong faith in the power and goodness of God, as well as certain powers and gifts which they might be supposed to bring to bear upon the invalid. But that a human being that is quite dead could be brought to life by another human being, possessed of what powers he may, appears to our limited understanding, no more credible than that an earthen vessel that has been broken in shivers can be made to hold water while in that broken state, or that a mill can be made to grind corn while it is all out of gear, and broken as to its internal machinery. Still the

which would be construed a capital offense against the Roman supremacy, the Messiah of any state being its chief ruler. This last with the general accusation that he was the leader of a band going about perverting the people, forbidding to give tribute to Cæsar, etc., effected his crucifixion criminally.

exercise of firm and unwavering faith in the power and goodness of the Deity is always commendable in human beings, as we do not know the conditions and relations of things as well as God knows them.

Ch. X. In this chapter is represented mainly the conversion and baptism of Cornelius, a Gentile, and his family. Verses 1–9 represent the vision of the angel to Cornelius, and his sending messengers to Joppa for Peter. In verse 4–7 are represented the precise words which the angel speaks to Cornelius, and the latter to him; verses 9–19 the vision of Peter while reposing on the housetop; verses 19–20 the words which the Spirit speaks to Peter; and verses 21–23 the words which Peter and the messengers of Cornelius speak to each other. And verses 26 to the end of the chapter reproduce to us the exact words spoken by Peter and Cornelius in their addresses to each other. Any candid reader will of course enquire how these speeches come to be given in the *direct oration* by a writer not himself a present witness of what he relates. But do we suppose that he compiled mostly from written traditions in which these speeches were given in this style? There is apparent probability in such a supposition to one who is disposed to look upon these representations as historical; but in the case of the Gospels we found that where there were several documents setting forth what might at first sight appear parallel accounts of the same thing, when these representations or accounts of speeches in the *direct oration* were fairly analised, they were found inconsistent with each other, as history. Even so were there other accounts accessible to us of the events which we have recorded here, we might also reasonably expect them to differ enough to be historically inconsistent with each other, in like manner. But the representations of the chapter are doubtless mainly allegorical, designed, as before, to confirm and supplement the Gospel representations, to foreshow the exaltation of the Christian priesthood, and to impress believers in Christianity with a sense of the inherent power and virtue of their hierarchy. The adherents of the Romish branch of the Christian Church have always held to Peter being the founder of the Church at Rome, although others contend that Paul founded it; and the Popes of Rome claim to be the direct successors of Peter, and the vicegerents of Christ in relation to the church. Peter, therefore, may be here regarded as symbolising the whole hierarchy of the Catholic Christian Church, and what he is represented as doing or exercising may represent what this hierarchy would assume to exercise or do.

Ch. XI. This chapter gives us an account of Peter's defence be-

fore the apostles for the alleged crime of communicating the doctrines of Christianity to the Gentiles, or the uncircumcised, and of the spread of Christianity among the Gentiles by Barnabas, Saul, and others, which indicates, at least, that the early Christians were zealous and vigilant in the promulgation of their opinions. And the last verses also indicate that there were prophets in the early Church. The representation in this chapter is still in accordance with the confirmatory and supplementary idea; contains, doubtless, some historical truth; and would teach lessons of zeal and activity to the growing Christian Church in the propagation of their doctrines.

Ch. XII. In this chapter, verses 1–20, is recorded the persecution of the Christian sect by Herod Agrippa; his killing of James, and imprisoning of Peter, who is represented as delivered out of prison by an angel. It then speaks of Herod as on a set day presenting himself upon his throne and making an oration to the people, upon which they salute him as a god, "and immediately the angel of the Lord smote him because he gave not God the glory; and he was eaten of worms and gave up the ghost." According to Josephus, this saluting took place as Herod was attending certain games that were celebrated at Cæserea, in honor of the Emperor, and he did not die till five days after the celebration of these games. This James, mentioned in the second verse as put to death by Herod, is doubtless the same spoken of by Josephus, as James the Just, but we do not find that he mentions the celebrated names of Peter or John or Saul. And it must always have appeared a matter of surprise to readers of the New Testament how it was that the twelve Apostles disappeared so mysteriously after the event of the crucifixion is represented to have taken place. Nothing of them is left us but two or three *names*. And as for the traditions concerning them afterwards by early writers they are all so differing as not altogether to be relied upon; some having them individually to preach the gospel in one place, others in another; some having them to have suffered martyrdom in one way, others in another; and so on as to all of them.* This representation of the deliverance of Peter by the angel bears all the appearance of a dream or vision. And thus we have the book of the Acts characterized by a mixture of history with vision, allegory and traditions all elaborately interwoven to fill out the supplementary idea. But we have in this book now only a part of the traditional stories which were contained in it in early times, but which, as before remarked, have been expunged from it.

Ch. XIII. This chapter represents to us Saul and Barnabas

* See the accounts of the twelve apostles in their order in Smith's Bible Dictionary; also in Kitto's Bible History, which may on the whole be regarded as less reliable authority. It is to be remembered, however, that the twelve apostle are put before us as, for the most part, unlearned men who perhaps would not be very forward preachers.

delegated by the Church at Antioch, to preach to the Gentiles. They sail to the island of Cyprus, and at Paphos, a sea-port of that island, they convert the Governor of the island, Sergius Paulus, to their faith; and here Saul, who, for some reason, left unexplained, begins now to be called Paul, performs a miracle by blinding the eyes of Barjesus, or Elymas the sorcerer. We have not any other evidence of these statements than what is given in the book of Acts. In verses 10, 11 are represented to us the exact words which Paul speaks to the sorcerer. Verses 16-42 set forth *verbatim* a speech of Paul in the Synagogue at Antioch in Pisidia: and verses 46-48, represent the exact words of Paul and Barnabas in their address to the opposing Jews. There is, doubtless, some historical truth in this chapter and there are some things which we cannot so readily conclude as of literal interpretation, namely, how that one human being can arbitrarily cause blindness to another, as Paul is represented to have done to the sorcerer. This we may, however, remark, that if the peculiar powers possessed by some men allow them a certain control over the faculties of others, they should use their powers for good, and not for evil. From this and from the use of the *direct oration* we should infer that there has been a good deal of allegory interwoven with some historical truth in this chapter.

Ch. XIV. This chapter also, doubtless, contains much historical truth with some allegory interwoven. Paul and Barnabas travel from place to place in their missionary work. But at Lystra Paul heals a cripple that had never walked; peculiarly, in this respect, like the one that Peter and John healed on their way into the temple, Ch. III. At the command of Paul, "stand upright on thy feet," he leaps and walks. Although it is not said that a permanent cure was effected upon the cripple, still the representation of their attempt to worship and sacrifice to Paul and Barnabas immediately after this, would indicate the cripple to have been able, at least for the time, to move about. In verses 8-18 the representation of the people addressing the missionaries, and the latter them, in the *direct oration*, would incline us to suspect that there is some allegory interwoven into the tissue of this narrative. Here also, verses 19-28, Paul is stoned nearly to death by the people, instigated by the opposing Jews, but he recovers and pursues his missionary labors, displaying, indeed, the spirit of one fully convinced that the cause in which he was engaged, and which he had first taken on faith, was a right worthy and true one.

Ch. XV. This chapter would appear to be historical. The speeches, however, of Peter and James, as well as other parts of the narrative given in the *direct oration* would be likely to indicate alle-

gory interwoven on the part of the writer. The design of the representation is, doubtless, mainly to supplement and confirm the narratives of the Gospels. When the apostles and elders in their letter to the faithful at Antioch are represented as making mention, v. 26, of Paul and Barnabas as "Men that have hazarded their lives for the name of our Lord Jesus Christ," it appears evident that it only means to indicate the cause in which they are engaged to advance in general, not the cause or name of any particular man, Jesus Christ, more than that of every true Christian in general; for some or most of those here called apostles and elders at Jerusalem are represented as strict adherents of the law of Moses, and observers of some Jewish ordinances; and we may certainly believe would not for a moment entertain the idea of setting up any particular man, either in place of God, or as worthy of the honor and worship which in the Jewish idea pertained to Jehovah alone.* *The idea of the general cause in which they were engaged and which pertained to them all in general and to each one in particular, as represented by the name Jesus Christ, or our Lord Jesus Christ, must have been the idea of Christ entertained by the intelligent primitive Christians, and not the idea of any particular man as distinct from and exalted above all the rest of the faithful.* As it is said in the Epistle of Jude: "And Enoch also, the seventh from Adam, prophesied, saying: The Lord cometh *in* (not only with, as translated) ten thousands of his saints." The leaders among the early Christians appear to have been quite intelligent, to have had a pretty clear understanding of what they were, and what they ought to do.

Ch. XVI. This chapter would appear to be mainly historical. The use of the first person plural by the writer from the tenth to the eighteenth verse of this chapter would indicate the writer of the book to have been with Paul at least during the time the events he relates in these verses were taking place; that is, he joins Paul at Troas, voyages with him thence to Philippi, and remains at that place after the apostle's departure from it. He, however, does not appear to have been imprisoned with Paul and Silas at Philippi, which imprisonment was one of the results of Paul's casting out a demon or spirit of divination from a damsel that was possessed with one, verses 16–25. Verses 25–40 represent to us the imprisonment of Paul and Silas, and how, upon their having prayed and sung praises unto God in the night, there was an earthquake, which shook the prison to its foundations, threw open all the prison doors, and loosened the bands of all the prisoners. From the fact that the writer was not a present witness of this not very probable scene of which he narrates, from the use of the *direct oration* in the conversa-

* The name Jesus Christ or Jesus of Nazareth would here stand for God and his cause in general, both in the converted Jewish and Gentile mind, in contradistinction to Satan and his cause. Jesus represented the cause of God, of Truth, and Righteousness.

tion represented between Paul and the jailor, from the circumstance of the jailor and his whole family being represented as being converted and baptized as a result of the miracle, and from the apparent attempt at probability in the latter part of the narrative setting forth the scene between the magistrate and the missionaries, we would not be able to conclude this miraculous account as literal, but would class it as allegoric. Many Christians, doubtless, have had their faith in the power of the preachers of their doctrines, and in the divinity of their religion, increased and strengthened by reading or hearing this account of the scene in the prison at Philippi.

Ch. XVII. This chapter is meant to be mainly historical. Paul pursues his missionary work, though followed by his persecutors from place to place, until he arrives at Athens, where the Athenians, anxious to become acquainted with the new doctrines which he brings to them, take him up on Mars Hill and have him deliver an oration, in which he explains his doctrines. This speech is represented to us in the *direct oration* as well as some other parts of the discourse of this chapter, though the writer of the book was not present here with Paul. It is well worth the reader's while to carefully peruse the speech of Paul on Mars Hill, as represented in this chapter. This chapter sets forth Christian doctrine and practice.

Ch. XVIII. This chapter is historical: it appears probable enough; but there is a lesson in it worthy of being learned by all Christians, and especially by all Christian ministers, a lesson from example, how, that the missionary Paul was a tent-maker who labored with his hands at his trade all the week, and reasoned in the synagogue every Sabbath-day, and persuaded the Jews and the Greeks, verses 3–5. It teaches them that they should not be above laboring with their hands at any honest employment in procuring that wherewith to support themselves and their families, that the truth of God may not be bound by their dependence upon the wicked rich.

Ch. XIX. This chapter appears to be historical, intermixed with some that looks apocryphal. See the story of the exorcists, verses 13–18, which, however, does not seem improbable that a madman would do when feeling himself aggrieved by men whom he suspected to be playing tricks on him. But see the use of the *direct oration*, especially in the speech of Demetrius, and that of the town clerk. But, doubtless, we must consider in this case, that Paul may have been present to take notes; and that the records may have come into the hands of the writer of the book of Acts.

Ch. XX. This chapter is historical. The writer, whoever he was, appears, as here indicated by the use of the first person plural, verses 5–7, in narration, to join Paul at Philippi, where he had been

left seven years before. He now appears to continue with Paul during the occurrence of the events narrated in the remaining parts of this book. The remaining eight chapters are historical, and seem in the main to be in accordance with the events which took place in the life of Paul within the time here included. There is, however, as before noticed, some difference in Paul's accounts of his conversion as recorded in the twenty-second and the twenty-sixth chapters, and that recorded in chapter nine. Also, if the reader will notice the last three verses of ch. XXVI., where our writer represents in the *direct oration* what was said in conference apart between Festus and Agrippa as to Paul, as well as other points which he may notice in the narrative, he will perhaps conclude that all the statements of this part of the book even, are not to be implicitly depended upon as authentic history. The reader will also notice the many stratagems which the apostle to the Gentiles makes use of to keep himself out of danger from his Israelitish or other enemies. He purifies himself and takes a vow at Jerusalem after the Jewish fashion, ch. XXI. He saves himself from persecution by the Roman authorities by declaring himself a free-born Roman citizen, ch. XXII. And in order to get the good-will of the Pharisees in the Council he declares himself a Pharisee, the son of a Pharisee, ch. XXIII. And by his eloquence he almost persuades Agrippa to become a Christian, ch. XXVI.; showing us that with all his belief of the miraculous interference of God in the behalf of those engaged in His cause, he still believed that the ministers or missionaries for the truth, or those engaged in whatever way in the service of God, should not omit or neglect to use any worthy means they may see available for their preservation while engaged in active duty, or any worthy act which they can make use of to advance the cause of truth and righteousness among mankind, at the same time that they cultivate firm and unwavering faith in the power and benevolence of the Deity.

After our review of the Gospels and the Acts we think it necessary to remark that although we have been at great pains to execute this whole analysis and synthesis with care and thoroughness, we fear there may be some who will not exercise such care in preparation to express themselves concerning it. We have the experience of some who are habituated to carelessly and in an empty vaunting way express themselves unfavorably of that which they do not take pains to understand, or which they are not competent or have not the means to investigate for themselves; and on the other hand of some who, perhaps in obedience to the impulse of the moment, speak approvingly of a matter in a similar manner and with a like amount of knowledge of it. Although I would not consider it right to disfavor

the exercise of judgment and the free discussion of profitable subjects, such as those embraced in this book, still I would consider that the mind should first be furnished with full and correct data upon which the judgment may be exercised. A partial knowledge of any subject can afford at most only a partial expression of it, and if that partial knowledge has been wrongly conceived that partial expression will doubtless be more or less a misrepresentation of the source whence the knowledge has been derived. When one expresses himself on a subject which he understands or which he has made himself acquainted with, his words have no uncertain sound, nor is it easy to misunderstand or misrepresent him.

With reference to the review under consideration, I now may add that the chief object of the review of the Gospels and the Acts was to simplify the idea of Christ, and to show what the Gospel system requires of men in order to their becoming living members of the kingdom of heaven, which, understood simply and really as it has been shown to be in the preceding pages, and as it will be shown more fully and clearly by and by, dispelling vague and erroneous ideas and drawing in the wandering thoughts concerning this subject, must tend to the peace and stability of mind of those who purpose living a godly life.

The object was not to demonstrate that Christ did not or does not exist, for he who doubts this, might, according to the proper understanding of the subject, as well doubt his own existence; but to give a more intelligent and correct understanding of the subject Christ; to show the interior Gospel idea concerning it; to intimate that material form or substance in the consideration of such a subject is of very little account when compared with moral character; that as the body without the spirit is dead, so the Spirit of Christ is that which we seek to attain, that of which we should be and by which we should be actuated, and that in which we should have faith rather than in any material bodily form; and to remove the veil of mystery from that perfect spiritual and moral character represented in the Gospels to which all should look for example and which all should imitate and cultivate in themselves.

A sure foundation is here laid, therefore, whereon others may build who have the inclination and the necessary qualifications to expound the Scriptures as they should be expounded, to teach the worship of God as it should be taught, and to raise a temple of "living stones,"* holy souls, to the honor of his name.

* See 1st Epistle of Peter, ch. II. 4, 5.

A Review of the History of the Christian Church, especially with reference to the Prophecies of the Book of Revelation.

First an Explanation of Chapters IV. and V. of Revelation, in connection with the History of the Primitive Church.

In order that all may profit by the experience which history affords, especially as it is connected with the Christian religion, we now propose to give a sketch of the history of the Christian Church, in its relation to the prophecies of the book of the Revelation, which book is a prophetic allegory designed to foreshow the state of the Christian Church in future ages in its relation to the world, especially to the Roman Empire. The first three chapters of this book are taken up with the messages to the seven churches of Asia. Chapters IV. and V. contain another representation which we shall glance at as relating to the state of the Christian Church, especially during the first three centuries. Ch IV., v. 1: "After this I looked, and, behold, a door was opened in heaven: and the first voice which I heard was as it were a trumpet talking with me; which said, Come up hither, and I will shew thee things which must be hereafter."

By heaven here, is meant the church of God, and the door being opened in it signifies, first, that the prophet might be enabled to take a view of its internal arrangements, and to form a judgment of its character; second, that all who would, might enter through the door; and, thirdly, it is represented as now established among men, not at the time the prophecy was delivered, but some time after; for the angel says to the prophet: "Come up hither, and I will shew thee things which must be hereafter." This hereafter, as we have remarked, refers especially to the period which intervened between the delivering of the prophecy and the establishment of the Catholic Christian religion in the Roman Empire, or say the second and third centuries of the Christian era. Verse 2: "And immediately I was in the spirit: and, behold, a throne was set in heaven, and one sat on the throne." The principal idea conveyed in this verse is a compound one, that of a throne set up in heaven, and one sitting thereon. Verse 3: "And he that sat was to look upon like a jasper and a sardine stone: and there was a rainbow round about the throne, in sight like unto an emerald." Here there is no attempt made to describe the one that sat upon the throne, only that he was to look upon like a jasper and a sardine stone, which stones are of various colors. This one is meant to symbolize the Deity, doubtless in accordance with the primitive Church idea; and the rainbow round about the throne, in appearance like to an emerald, would signify not

only his holiness and perfection, but also his propitious character. Verse 4: "And round about the throne were four and twenty seats (lit. thrones), and upon the seats I saw four and twenty elders sitting, clothed in white raiment; and they had on their heads crowns of gold." The four and twenty elders clothed in white robes and having on their heads crowns of gold, and sitting upon seats or thrones round the throne of Deity, represent the Christian Church as made up of Jews and Gentiles. The white robes are emblematic of truth and purity, and the crowns of gold of the wealth and dignity of the Christian Church on earth; for although this prophecy, we are now considering, we apply especially to the primitive Church, yet it may refer to the truer part of the Christian Church in all ages. Verse 5: "And out of the throne proceeded lighnings and thunderings and voices; and there were seven lamps of fire burning before the throne, which are the seven Spirits of God." The lightnings and thunderings, and voices proceeding out of the throne indicate that a change was being brought about in the old established state of things by the direct will and power of Deity; in this case that a revolution in religion was taking place in the world, which was so in the times of the primitive Church. The seven lamps of fire burning before the throne representing the seven Spirits of God (seven being prophetically a perfect number), indicate the perfection of the effective power of Deity, the perfection of his wisdom and knowledge, as well as the perfection of the light which the true Christian religion doth infuse. The true Christian religion, that is, the Christian religion rightly understood and unmixed with error, is superior to all other religions which we know to have existed. Verse 6: "And before the throne there was a sea of glass, like unto crystal; and in the midst of the throne, and round about the throne, were four beasts (lit. living creatures, Greek, ζῶα) full of eyes before and behind." The sea of glass, like unto crystal before the throne, indicated the purity of faith of the true Christian Church, especially as set forth in primitive times, in the ages of its persecution. Where we meet with any passage in this book which sets forth a sea of glass mingled with fire, as ch. XV. v. 2, it symbolizes a state of the faith more or less corrupt. The four living creatures being in the midst of the throne, and round about the throne, means that they appear under, and supporting the throne, having their faces outwards, and their hind parts inwards. And their being full of eyes, before and behind, would signify the omniscience of Deity, as represented in them, his agencies. The idea of Deity represented here, is in accordance with the idea of Deity which would prevail among mankind in the ages which the vision especially rep-

resents. Mankind, according to this, hardly conceives of Deity as omnipresent, but a good deal in accordance with the old Jewish idea of Jehovah, a personal Deity, still not conceived of as having parts or passions, as eminently set forth here in him that sits upon the throne. Still, although perhaps not conceived then in that way, the omnipresence of Deity appears in his omniscience as symbolized by the eyes in the living creatures. This vision eminently symbolizes the idea of Deity, entertained in the primitive Church before the subject of the Trinity began to occupy much of men's attention, or to be agitated. Verse 7: "And the first living creature was like a lion, and the second living creature like a calf, and the third living creature had a face as a man, and the fourth living creature was like a flying eagle." These four living creatures might symbolize the whole of animate creation, so far as it pertains to the earth and the air; or they might rather symbolize mankind world-wide (as indicated by the number four), in all the phases of his character. Thus, the lion-like face symbolizes steady courage and boldness, as represented in the warrior class; the calf-like appearance, the ignorant, uneducated classes, the man-like appearance, the intelligent classes; and the eagle-like appearance, the intrepid, the fearless, and, shall we say, chivalrous of mankind. Besides, and in connection with the last explanation, the four symbolic living creatures might have had a reference to the four prophetic Empires, the first of which, the Babylonian, was symbolized by the lion, and the last, the Roman, was always represented by the eagle; the calf might properly symbolize the Medo-Syriac, and the man the Grecian Empire. These four Empires were in the main united in one, the Roman Empire, at the time this prophecy was delivered. Either of these explanations, that is, of the four living creatures, symbolizing the animate creation pertaining to the earth and air, or mankind world-wide, as described above, is admissible. Thus, God was conceived as a Being above, and governing all these.

Verse 8: "And the living creatures had each of them six wings about him; and they were full of eyes within; and they rest not day and night, saying: "Holy, holy, holy, Lord God Almighty, which was, and is, and is to come." Each of the living creatures having six wings, six being prophetically an imperfect number, signifies that each of them represented only a part; but taken all together they represented the whole of what they did represent; twenty-four wings corresponding to the number of the heavenly elders, which we know symbolized the complete Christian Church, as made up of Jews and Gentiles. "And they were full of eyes within," signifying the omniscience and omnipresence of Deity

as represented in his agencies and creatures. This word "within" does not mean the same with the word "behind," verse 6; both of them respectively corresponding to our words within and behind. And they rest not day and night, saying: Holy, holy, holy, Lord God Almighty, which was, and is, and is to come." All animate creation is naturally imbued with the spirit of praise to God, who maketh even the wrath of man to praise him; and this praise ascends to Deity by night and by day. And not only from the animal, but from the vegetable, yea, from all creation, does praise ascend to Deity, but in different ways. The praise here, however, referred to has especial reference to that which ascends to God from mankind world-wide. The Lord God Almighty, which was, and is, and is to come, or the ever present Deity manifesting himself variously, or rather conceived of differently by mankind in different ages in one way, in the past, in another way in the present, and still in other ways to be in the future. This, too, has especial reference to the eternity of man, as best represented in the idea of Jesus Christ, the Alpha and the Omega, the beginning and the ending, the first and the last.

Verse 9 to end of chapter: "And when those living creatures give glory and honor and thanks to him that sat upon the throne who liveth for ever and ever, the four and twenty elders fall down before him that sat on the throne, and worship him that liveth for ever and ever, and cast their crowns before the throne, saying: Thou art worthy, O Lord, to receive glory and honor, and power; for thou hast created all things, and for thy pleasure they are and were created." Here, the twenty-four elders are represented as praising God simultaneously with the four living creatures; the elders representing the Christian Church, now established among mankind in general, which are especially represented by the four living creatures praising God, worshipping Deity variously in different localities of the earth. Both the Christian worship of the Deity and the worship of Deity by mankind variously, go on at the same time. Here, be it remarked, the worship is given to one God, without any idea of plurality of persons in the Deity being implied. The elders cast their crowns before the throne, signifying that the Christian Church would willingly surrender their wealth and honors at the shrine of Deity, and that though kings, they would be the servants of God, in all self-denial and humility.

Ch. V., v. 1: "And I saw in the right hand of him that sat upon the throne a book written within and on the back side, and sealed with seven seals." Here, he that sits upon the throne is represented as having a right hand, which is the only description as to parts that

is given of him, and in the hand he holds a little book (βιβλιον) which is written within and on the back side (after the manner of a roll), and sealed with seven seals. This little book symbolized the wisdom and knowledge which the Christian religion was designed to impart to mankind. But how was this wisdom and knowledge to be attained? For the little book was sealed with seven seals, completely, perfectly sealed; for seven signifies completeness, perfectness. This we shall see by and by.

Verses 2–6: "And I saw a strong angel proclaiming with a loud voice: Who is worthy to open the book, and to loose the seals thereof. And no man in heaven, nor in earth, neither under the earth was able to open the book, neither to look thereon. And I wept much because no man was found worthy to open and to read the book. And one of the elders said unto me: Weep not: behold, the Lion of the tribe of Judah, the root of David, hath prevailed to open the book and to loose the seals thereof."

By the strong angel proclaiming with a loud voice is doubtless symbolized the efforts which humanity would make at the time of the introduction of Christianity to extricate itself from the bonds of superstition. The prophet weeps because there is found no one either in heaven or earth, the old Church or the world, worthy or able to open the book, or to loose the seals, which indicates the pitiable condition of ignorance and superstition in which humanity was. But one of the elders raises his courage by saying to him: "Weep not: Behold, the Lion of the tribe of Judah, the root of David, hath prevailed to open the book." Christianity was primarily of the Jews. The ideal Christ of the Gospel is represented as springing from the tribe of Judah, and the family of David. Here, however, Christ is represented as the *root* or ancestor of David, which shows that mankind personified, especially the Jewish nation, from which the idea of Christianity originated, is meant. Mankind, personified under the idea of Christ (or in the ideal Christ), the ancestor and offspring of David, is meant. The Lion of the tribe of Judah will then signify Christianity and all its agencies. This, by teaching men what they were and what they ought to be and to do, imparted to them divine wisdom and knowledge; revealed to them the mystery of Deity; so that the humble Christian, if he be moderately intelligent, may become as conversant with the subject of Deity as the proud and learned worldly philosopher.

Verses 6–8: "And I beheld, and lo, in the midst of the throne and of the four living creatures, and in the midst of the elders stood a Lamb, as it had been slain, having seven horns and seven eyes, which are the seven spirits of God sent forth into all the earth. And

he came and took the book out of the right hand of him that sat upon the throne." The prophet seeing the Lamb standing in the midst of the throne, and of the four living creatures, and in the midst of the elders, means that the Lamb formed a conspicuous object of the group made up of the throne, with the living creatures supporting it, and the elders around. The Lamb would appear thus a conspicuous object somewhere near the centre (μέσω) of the group. The Lamb appearing as if he had been slain signifies the crucifixion or slaying of the flesh, with its affections and lusts, as symbolized by the representation of the crucifixion on Calvary, which each true Christian has to effect in himself. And this, as every good Christian minister knows, is a far more important crucifixion (though not a literal one) than any literal crucifixion of the body can be. This carnal crucifixion is necessary to be practised by all Christians in order that they may live the life of entire godliness in the spirit, and so attain to divine truth; otherwise, be their faith or name what it may, they remain still in their sins and their ignorance. This crucifixion of the flesh with its affection and lusts, and living the life of patient self-denial and entire consecration to God, are the all-important things in Christianity, without which all other things, by whatever name called, are of no avail to the attainment of perfection in wisdom and the knowledge of God. The age of the primitive Church was eminently one of self-denial and persecution for the Christians, during which they lived in general holier lives, and, we believe, maintained the faith purer than in any subsequent age. The lamb having seven horns and seven eyes signifies, first, the omnipotence of true Christianity in which men are not only made perfect, but conquer through intelligent and patient self-abnegation and zealous activity in the cause of godliness; and, second, the omniscience which is attained by the pursuit of the true Christian course. Each one has in one's self the principle of this omniscience and omnipotence, which is the real and true omniscience and omnipotence: and the sum of mankind have it collectively; only requiring to be developed in each and all. The Lamb having the seven horns and seven eyes (perfection of power and of wisdom) symbolized the certain success of the Christian movement, the final prevalence of true Christianity. The Lamb steps forward and takes the book out of the right hand of him that sits upon the throne; signifying that the work is to be done particularly by human beings themselves; the book of wisdom and knowledge awaits them, is held out to them, but they have to go and take it. They must take the forward step, make the continued faithful and determined effort, before they can expect to attain to any great degree of perfection. But the persist-

ent faithful efforts are crowned with success. "Wilt thou know, O vain man, that faith without works is dead?"

Verse 8, to end of chapter: "And when he had taken the book, the four living creatures and four and twenty elders fell down before the Lamb, having every one of them harps and golden vials full of odors, which are the prayers of Saints. And they sung a new song, saying: Thou art worthy to take the book and to open the seals thereof; for thou wast slain and hast redeemed us to God by thy blood out of every kindred and tongue and people and nation; and hast made us unto our God, kings and priests, and we shall reign on the earth. And I beheld, and I heard the voice of many angels round about the throne, and the living creatures and the elders: and the number of them was ten thousand times ten thousand, and thousands of thousands, saying with a loud voice: Worthy is the Lamb that was slain to receive power and riches and wisdom, and strength and honor and glory and blessing. And every creature which is in heaven and on the earth and under the earth, and such as are in the sea, and all that are in them, heard I saying: Blessing and honor and glory and power be unto him that sitteth upon the throne, and unto the Lamb for ever and ever. And the four living creatures said: Amen. And the four and twenty elders fell down and worshipped him that liveth for ever and ever." Here, verses 8–10, the twenty-four elders or representatives of the Christian Church are shown as falling down before the Lamb and ascribing praise to him for what he had done for them: "because thou wast slain and hast redeemed us to God by thy blood, &c." It is to be remarked that they are not represented as giving to the lamb-like object the same kind of worship they give to him that sits upon the throne and lives for ever and ever. Their praise to the Lamb is in gratitude for what he had done for them in that, by the example of his self-sacrifice, he gives them wisdom and knowledge, and power and salvation, whereby they are made unto God kings and priests; and they shall reign on the earth. This whole representation is, however, symbolic, a carrying out of the Gospel's idea of Christ; and the lamb-like symbol represents humanity redeemed and perfected by intelligent Christian self-denial, patience, humility, and active godliness. The all-inclusive language in verses 11–14 bespeaks universal prevalence for the Christian religion, but become mystified; for see, verse 13, the same praise is ascribed to the Lamb that is given to him that sits upon the throne; which was one of the results of the establishment of the doctrine of the Trinity in the fourth century under Constantine and Theodosius, and was not peculiar to primitive Church times, when the faith was comparatively simple.

But see, verse 14 and last, the elders still adhere to the worship *only* of him that sits upon the throne and liveth for ever and ever. True wisdom teaches us to worship the infinite and invisible Deity alone, which is neither an object of the sense nor of the imagination. The principal ideas set forth symbolically in this representation are those of the crucifixion of the flesh, with its affections, and lusts; the living a life of entire and active godliness, and the following the intelligent elders in the worship of the infinite and invisible Deity alone, as may be in some inadequate sense symbolized by him that sat upon the throne. The ensuing Chapters, VI.–XIII. (at which last we propose to begin again with the interpretation of the prophecy), contain prophecies relating to the history of the Christian Church, and of the Roman Empire, with especial reference in some part, as ch. IX., to the Mohammedan and Turkish invasions, &c., as to the others. And now we shall give a chapter upon

The History of the Primitive Christian Church.

The greater part of the original Jewish converts to Christianity adhered to the ceremonies of their ancestors, and were desirous of imposing them upon the Gentiles who continually increased the number of the Christians. The first fifteen bishops, or rather presbyters, of Jerusalem were all circumcised Jews; and the congregation over which they presided united the law of Moses with the doctrines of Christ. It was natural that the primitive tradition of a Church which was founded shortly after the first introduction of Christianity should be acknowledged by all the other Christian Churches as the standard of orthodoxy. The distant Churches very frequently appealed to the authority of their venerable parent, and relieved her distresses by their voluntary contributions. But when numerous and opulent Christian societies were established in the great cities of the Empire, in Antioch, Alexandria, Ephesus, Corinth, and Rome, the reverence which Jerusalem had inspired to all the Gentile Christians insensibly diminished. The Jewish converts, or, as they came afterwards to be called, the Nazarenes, who had laid the foundation of the Church, soon found themselves overwhelmed by the increasing multitudes that from all the various religions of Paganism enlisted under the Christian banner; and the Gentiles who, with the approbation of their peculiar apostle, had rejected the Mosaic ceremonies, at length refused to their more scrupulous brethren the same toleration which they had at first humbly solicited for their own practice. The ruin of the city, and of the temple and public religion of the Jews about the year 70 A. D., was severely felt by the Nazarenes. They retired just before the siege began to the little town of Pella, east of

the Jordan, where the ancient Church languished above sixty years in solitude and obscurity. At length, in the reign of Hadrian, they again effected an entrance to the new Roman city, Ælia Capitolina, which was founded on Mount Zion, on the ruins of old Jerusalem, by that Emperor, and from which all other Jews were excluded. This entrance the Nazarenes accomplished in a peculiar manner. They elected for their bishop Marcus, a Gentile, and most probably an Italian, or a native of one of the Latin provinces. Persuaded by him, the most considerable part of the congregation renounced the Mosaic law, in the practice of which they had persevered above a century. By this sacrifice of their prejudices and habits they purchased a free admission into the colony of Hadrian, and more firmly cemented their union with the general Christian Church. When this restoration to Mount Zion was effected, the crimes of heresy and schism were imputed to the remnant of the Nazarenes which refused to accompany their Latin bishop. They still preserved their habitation of Pella, spread themselves into the villages adjacent to Damascus, and formed an inconsiderable Church in the city of Berœa, now Aleppo, in Syria. The name Nazarenes* was soon thought to be too honorable an appellation for these Christian Jews, and they received from their supposed scanty resources of mind and of estate the contemptuous epithet of Ebionites, that is, paupers.

In a few years after the restoration of the church to Jerusalem it became a matter of dispute whether a man who had acknowledged Christ as the Messiah, but who still continued to observe the law of Moses, could possibly hope for salvation. Justin Martyr answered this question in the affirmative; and though he expressed himself with the most guarded diffidence he ventured to determine in favor of such an imperfect Christian, if he were content to practice the Mosaic ceremonies without pretending to assert their general use or necessity. But when Justin was pressed to declare the sentiment of the Church he acknowledged there were very many among the orthodox Christians, who not only excluded their Judaizing brethren from the hope of salvation, but who denied intercourse with them in the common offices of friendship, hospitality, and social life. The more rigorous opinion prevailed over the milder; and a line of demarcation was drawn between the disciples of Moses and those of Christ.

The Ebionites, rejected from one religion as apostates and from the other as heretics, found themselves compelled to assume a more decided character; and although some traces of that sect may be discovered as late as the fourth century they insensibly melted away into the Church or the Synagogue. Of all the systems of Christianity

* The Nazarenes, which were the stock of the Ebionites, we are to regard as the first founders of Christianity: to that sect we are to look for the facts as to its origin. Whatever may have been their individual beliefs as to the character of Jesus, they appear to have had no doubt that their man was crucified.

it is said that of Abyssinia is the only one which adheres to the Mosaic rite.

While the orthodox Churches preserved a just medium between excessive veneration and improper contempt for the law of Moses, the various heretics deviated into equal, but opposite extremes. From the acknowledged truth of the Jewish religion the Ebionites had concluded that it could never be abolished. From its supposed imperfections the Gnostics * as hastily concluded that it never was instituted by the wisdom of the Deity. There are some objections seeming or real against the authority of Moses and the Old Testament institutions which readily present themselves to the inquiring mind. These objections were eagerly embraced and petulantly urged by the Gnostics. As those heretics were for the most part opposed to the pleasures of sense they arraigned the polygamy of the patriarchs, the gallantries of David, and the seraglio of Solomon. The conquest of the land of Canaan and the extirpation of the unsuspecting natives they were at a loss how to reconcile with the common notions of humanity and justice. But when they recollected the sanguinary list of murders, of executions and of massacres which stain almost every page of the Jewish annals they acknowledged that the barbarous Israelites had exercised as much compassion towards their idolatrous enemies as they had ever showed to their friends and countrymen. Passing from the sectaries of the law to the law itself they asserted that it was impossible that a religion which consisted only of bloody sacrifices and trifling ceremonies, and whose rewards, as well as punishments were all of a carnal and temporal nature, could inspire self-denial or the practice of virtue. The Mosaic account of the creation and fall of man the Gnostics treated with derision. They would not listen with patience to the repose of the Deity after six days' labor, to the rib of Adam, the garden of Eden, the tree of life and of knowledge, the speaking serpent, the forbidden fruit, and the condemnation pronounced against human kind for the venial offence of their first parents. The God of Israel was represented by the Gnostics as a being liable to passion and to error, capricious in his favor, implacable in his resentment, meanly jealous of his superstitious worship, and confining his partial providence to a single people, and to this transitory life. In such a character they could discover none of the features of the all-wise and omnipotent universal parent. They allowed that the religion of the Jews was somewhat less criminal than the idolatry of the Gentiles; but it was their fundamental doctrine that the Christ that they acknowledged as the first and brightest emanation of the Deity appeared upon earth to rescue man-

* A strong, considerably intelligent, and influential sect of primitive Christians.

kind from their various errors, and to reveal a new system of truth and perfection. The Gnostics, also called Docetæ,* believed in the non-reality of a material body of Christ. Their doctrine was that instead of issuing from the womb of a virgin, as the orthodox had it, he had descended on the banks of the Jordan in the form of perfect manhood; that he had imposed upon the senses of his enemies and his disciples: and that the ministers of Pilate had wasted their impotent rage upon an airy phantom that seemed to expire on the cross and after three days to rise from the dead. Educated in the Platonic school, they conceived that the brightest Æon or emanation of the Deity might assume the outward shape and visible appearance of a human being: but they did not conceive the imperfections of matter to be compatible with the purity of the celestial substance. The most learned of the orthodox Fathers admit the doctrines of the Gnostics. Acknowledging that the literal sense is repugnant to faith as well as reason, they take their stand and deem themselves secure behind the veil of allegory, which they claim is spread over most of the Scriptures.

During the first one hundred years of Christianity its professors were indulged in a freer latitude of faith and practice than has ever been allowed in succeeding ages. As the spiritual authority of the prevailing party was exercised with increasing severity, and the terms of communion were gradually narrowed, many of its most respectable adherents who were called upon to renounce, were provoked to assert their private opinions, and openly to erect the standard of rebellion against the orthodox rule of the Church. The Gnostics were distinguished as the most polite, the most learned, and the most wealthy of the Christian name; and that general appellation which expresses a superiority in knowledge† was either assumed by themselves or ironically bestowed by their envious adversaries. They were almost all of the races of the Gentiles, and their principal founders appear to have been natives of Syria and Egypt. The Gnostics blended with the faith of Christ many sublime but obscure tenets, which they derived from oriental philosophy and even from the religion of Zoroaster, concerning the eternity of matter, the existence of the two principles, and the mysterious hierarchy of the invisible world. As soon as they had launched out into that ocean of speculation they delivered themselves to the guidance of a disordered imagination, and they were insensibly divided into more than fifty particular sects, of whom the most celebrated were the Basilidians, the Valentinians, the Mar-

* From *δοκέω* to seem, as they held that Christ was only an appearance, and not a real body.

† From *γιγνώσκω* to know.

cionites, and, in a still later period, the Manichæans. Each of these sects could boast of its bishops, and congregations, of its doctors and martyrs; and instead of the four Gospels adopted by the Church they produced a number of histories in which were related the actions and discourses of Christ and his apostles; but we may remark here that Origen, that indefatigable writer, who spent his life in the study of the Scriptures, relies for their authenticity upon the inspired authority of the Church.

The success of the Gnostics was rapid and extensive. They covered Asia and Egypt, established themselves in Rome and penetrated to some extent into the provinces of the West. They arose in the first and second centuries, flourished in the third, and were depressed in the fourth and fifth by the prevalence of the Orthodox, or Trinitarians, and the superior ascendant of the ruling power.

Whatever difference of opinion might subsist between the Orthodox, the Ebionites, and the Gnostics concerning the divinity or obligation of the Mosaic law, they were all equally animated by exclusive zeal; and by the same abhorrence for idolatry which had distinguished the Jews from the other nations of the ancient world. The philosopher who understood the systems of polytheism as compositions of human fraud and error could disguise a smile of contempt under a mask of devotion without fearing that either the mockery or the compliance would subject him to the resentment of any invisible, or, as he conceived them, imaginary powers. But the primitive Christians were accustomed to look upon the established religions of Paganism in a much more odious and formidable light. It was their invariable sentiment that the demons were the authors, the patrons, and the objects of idolatry. Those rebellious spirits, they thought, which had been degraded from the rank of angels, and cast down into the infernal pit, were still permitted to roam upon the earth to torment the bodies, and seduce the minds of sinful men. The demons soon discovered the natural propensity of the human heart towards devotion, and artfully withdrawing the worship of mankind from their Creator, they usurped the place and honors of the supreme Deity. By the success of their usurpations they at once gratified their pride and revenge, and obtained the only consolation of which they were yet susceptible, the hope of involving mankind in a participation in their guilt and miseries. It was imagined that they had distributed among themselves the most important characters of polytheism, one demon assuming the name and attributes of Jupiter, another of Æsculapius, a third of Venus, and a fourth of Apollo; and that by the advantage of their long experience and aerial nature, they were enabled to execute with skill and dignity the parts which they had undertaken.

They lurked in the temples, instituted festivals and sacrifices, invented fables, pronounced oracles, and were frequently allowed to perform miracles. The Christians who, by the interposition of invisible evil spirits, could so readily explain every preternatural appearance were disposed to admit the most extravagant fictions of the Pagan mythology. But the Christian's belief was accompanied with horror. The most trifling mark of respect paid to the national religion he considered as a direct homage yielded to the demon, and as an act of rebellion against the majesty of God.

In consequence of these opinions, the Christian regarded it as his first and most imperative duty to preserve himself pure and uncontaminated from the practice of idolatry. The religions of the nations were not merely speculative doctrines professed in the schools or preached in the temples. The innumerable deities and rites of polytheism were interwoven with all the circumstances of business or pleasures of public or private life; and it appeared impossible to escape the observance of them without at the same time renouncing all the offices and amusements of society, and all commerce with mankind. We in the present age can hardly conceive the difficulties which the primitive Christians experienced in preserving themselves from the countenancing and practice of idolatry.

The doctrine of a future state was scarcely considered among the polytheists of Greece and Rome as a fundamental article of faith. They understood the providence of the gods as it related to public communities rather than to private individuals, to be principally displayed upon the theatre of this visible world. The petitions offered on the altars of Jupiter or Apollo expressed the anxiety of their worshippers for temporal happiness, without regard to a future life. The doctrine of the soul's immortality was inculcated with more diligence and success in India, Assyria, Egypt and Gaul; and, since we cannot attribute such a difference to the superior knowledge of the barbarians, we may ascribe it to the influence of an established priesthood, which employed it as a motive tending to the practice of virtue, and as an instrument of their ambition. We would naturally expect that a principle so essential to religion would have been revealed in the clearest terms in the Mosaic law, and inculcated by the hereditary priesthood of the Jewish nation. But we discover that the doctrine of the immortality of the soul is omitted in the law of Moses. After the return of the exiled Jews from Babylon, and after Ezra had restored the ancient records of their religion, two celebrated sects, the Sadducees and the Pharisees, gradually arose at Jerusalem. The former, belonging to the more opulent ranks of society, adhered strictly to the literal sense of the Mosaic law, and

rejected the immortality of the soul as an opinion which received no support from the book which they revered as the only rule of life. To the authority of the Scriptures the Pharisees added that of tradition; and they accepted under the name of tradition, several speculative tenets from the religions of the Eastern nations. The doctrines of fate or predestination, of angels and spirits, and of a future state of rewards and punishments were in the number of the new articles of their belief: and as the Pharisees, by their austere manners, had drawn into their party the body of the Jewish people, the immortality of the soul became the prevailing sentiment of the synagogue under the reign of the Asmonæan princes and priests. As soon as the Jews admitted the idea of a future state, they embraced it with that zeal which has always so characterized their nation.

When the promise of eternal life and happiness was proposed to mankind on condition of adopting and practising the faith of the Gospel, it is no wonder that so advantageous an offer should have been accepted by great numbers of every religion, rank, and province of the Roman Empire. The ancient Christians were animated by a contempt for their present existence, and by a confidence of immortality, of which the doubtful and imperfect faith of modern ages cannot give us any adequate notion. The influence of the doctrines of the primitive Church was much strengthened by an opinion which universally prevailed therein, that the end of the world and the kingdom of heaven were at hand. The near approach of this awful event they believed to be foretold in the Gospels, and those who understood in their literal sense the discourses of Christ, as represented there, expected the second and glorious coming of the Son of Man in the clouds before that generation should have passed away which was witness of the calamities of the Jews under Vespasian or Hadrian. The revolution of eighteen centuries shows us the fallacy of interpreting these prophecies literally; but as this opinion subsisted in the Church it was productive of the most salutary effects on the faith and practice of the Christians, who lived in the awful and constant expectation of that moment when the globe itself and all the various races of mankind should tremble at the appearance of the Divine Judge. The ancient and popular doctrine of the Millennium was immediately connected with the second coming of Christ. As the works of creation had been finished in six days their present state, according to a tradition which was attributed to the prophet Elijah, was limited to six thousand years. By the same analogy it was inferred that this long period of toil and contention which was now almost elapsed would be succeeded by a joyful Sabbath of a thousand years, and that Christ, with the triumphant band of the

Saints and the elect who had escaped death (see I. Thessalonians IV., 15–18), or who had been miraculously revived, would reign upon earth till the time appointed for the last and general resurrection. So pleasing was this hope to the mind of the Christians that they quickly adorned the new Jerusalem, the seat of the blissful kingdom, with all the gayest colors of the imagination. The inhabitants of this millennial paradise were still supposed to retain their human nature and senses after as before the resurrection. A city was erected of gold and precious stones, and a supernatural plenty of corn and wine was bestowed on the adjacent territory, in the free enjoyment of whose spontaneous productions the happy and benevolent people were never to be restrained by any jealous laws of exclusive property. The assurance of such a Millennium was carefully inculcated by a succession of Fathers from Justin Martyr and Irenæus, who, it was said, conversed with the immediate disciples of the apostles, down to Lactantius, who was preceptor to the son of Constantine. Such appears to have been the reigning sentiment of the orthodox believers, and it seems so well adapted to the desires and apprehensions of mankind that it must have contributed in a very considerable degree to the progress of the Christian Church. But when the Christian edifice was almost completed the temporary support was laid aside. The doctrine of Christ's literal reign upon earth was at first regarded as a profound allegory, was considered by degrees as a doubtful and useless opinion, and was at length rejected as the absurd invention of fanaticism and heresy.

Whilst the happiness and glory of a millennial reign was promised to the true Christians, the most dreadful calamities were pronounced against an unbelieving world. The edification of a new Jerusalem was to advance by equal steps with the destruction of the mystic Babylon; and as long as the Emperors who reigned before Constantine persisted in the profession of idolatry the epithet of Babylon was applied to the city and empire of Rome. A regular series was concocted of all the evils, physical and moral, which can afflict a flourishing nation; intestine discords and the invasion of the fierce barbarians from the unknown regions of the North; pestilence and famine, comets and eclipses, earthquakes and inundations. All these were only so many preparatory and ominous signs of the great catastrophe of Rome, when the country of the Catos, the Scipios, and Cæsars should be consumed by a flame from heaven, and the city of the seven hills, with her palaces, her temples, and her triumphal arches, should be buried in a vast lake of fire and brimstone. The country which from religious motives, had been chosen for the origin and principal scene of the conflagration was the best adapted for that purpose by

natural and physical causes, by its deep caverns, beds of sulphur, and numerous volcanoes, of which those of Vesuvius, of Etna, and of Lipari exhibit but an imperfect representation. And the calmest and most intrepid skeptic, in the then state of scientific knowledge, could hardly refuse to allow that the destruction of the system of the world by fire was in itself not improbable. The Christian also founded his belief much less on the deduction of reason than on the authority of tradition, and his interpretation of Scripture; expected it with terror and confidence as a certain approaching event; and as his mind was perpetually filled with the solemn idea he considered every disaster that happened to the Empire as an infallible symptom of an expiring world.

The condemnation of the wisest and most virtuous of the ancients on account of their ignorance or incredulity with respect to Christianity, implies an idea offensive to reason, and highly presumptuous. But the primitive Church, whose faith was of a firm consistence, delivered over without hesitation to eternal torture the far greater part of mankind. They might perhaps indulge a charitable hope in favor of Socrates, or some other sages of antiquity, who consulted the benefit of mankind according to the light of reason, before that of the Gospel had arisen. But they unanimously affirmed that those who, since the introduction of Christianity, had obstinately persisted in the worship of the demons, neither deserved nor could expect a pardon from the justice of the Deity. These rigid sentiments, which had been unknown to the ancient world, appear to have infused a spirit of bitterness into a system otherwise of love and harmony. The ties of blood and friendship were frequently torn asunder by the difference of religious faith; and the Christians who in this world found themselves oppressed by the power of the Pagans, were sometimes reduced by resentment and spiritual pride to delight in the prospect of their future triumph. "You are fond of spectacles," exclaims Tertullian; "expect the greatest of all spectacles, the last and eternal judgment of the universe. How shall I admire, how laugh, how rejoice, how exult, when I behold so many proud monarchs, so many fancied gods groaning in the lowest abyss of darkness; so many magistrates who persecuted the name of the Lord, liquefying in fiercer fires than they ever kindled against the Christians; so many deluded philosophers blushing in red-hot flames with their deluded scholars: so many celebrated poets trembling before the tribunal, not of Minos, but of Christ; so many tragedians more tuneful in the expression of their own sufferings; so many dancers—" but feelings of humanity suggest to us to draw a veil over this fearful description which the fierce African (rather an exception, indeed, in

this respect, to the generality of the early Christian writers), still pursues in a long variety of affected and unfeeling witticisms.

But beyond doubt there were many among the primitive Christians of a temper more corresponding to the meekness and charity of their profession. There were many who felt a sincere compassion for their friends and countrymen, and who exerted their zeal and influence to save them from impending destruction. The careless and ignorant polytheist, assailed by new and unexpected terrors, against which neither his priests nor philosophers offered him any certain protection, was frequently terrified and subdued by the menace of eternal damnation. His fears might assist the progress of his faith and reason; and if he could only persuade himself that the Christian religion might possibly be true it became an easy task to convince him that it was the safest party that he could possibly embrace.

The supernatural gifts, too, which were claimed to be exercised by the Christians above the rest of mankind, must have conduced to their own comfort, and frequently to the conversion of infidels. The expulsion of evil spirits from the bodies of those persons whom they had tormented was considered a signal though ordinary triumph of the Christian faith, and is repeatedly urged by the ancient Fathers as the most convincing evidence of the truth of Christianity. The ceremony was usually performed in a public manner, and in the presence of a great number of spectators; the patient was relieved by the power or skill of the exorcist, and the vanquished demon was heard to confess that he was one of the fabled gods of antiquity that had impiously usurped the adoration of mankind. The reader cannot fail to see how such effects and phenomena may have been produced after reading the illustrations in the case of the miracles of the Gospels; still considering that they may have been produced in other ways by the influence of the Holy Spirit. But the most miraculous cure of diseases of the most inveterate and preternatural kind can no longer occasion us any surprise when we are informed that in the days of Irenæus, about the end of the second century, the resurrection of the dead was very far from being esteemed an uncommon event. Dr. Middleton, however, thus objects to this statement of Irenæus: "It is very strange that from the time of the apostles there is not a single instance of this miracle to be found in the three first centuries: except a single case slightly intimated in in Eusebius from the works of Papias,* and which he seemed to rank among the other fabulous stories delivered by that weak man." And

* The preceptor of Irenæus and who claimed to have conversed with the apostle John. Such is how tradition comes to us.

Bp. Douglass considers Irenæus to speak of what had "been performed formerly," not in his own time. At such a period, however, when faith could boast of so many wonderful victories over death, it seems difficult to account for the skepticism of these philosophers who still rejected and derided the Christian doctrine of the resurrection. A noble Greek had rested upon this important ground the whole controversy, and promised Theophilus, bishop of Antioch, that if he could be gratified with the sight of a single person who had been actually raised from the dead, he would immediately embrace the Christian religion. It is to be remarked that this prelate, however anxious he may have been for the conversion of his friend, thought proper to decline this fair and reasonable challenge.

It is evident that the unresisting softness of temper, so conspicuous among the primitive Christians of the first three centuries, proved of some benefit to the advancement of their cause. The most credulous or curious among the Polytheists were often persuaded to enter into a society which asserted an actual claim of miraculous powers. The primitive Christians perpetually trod on mystic ground, and their minds were exercised to the habit of believing the most extraordinary events. They felt, or they fancied, that on every side they were incessantly assaulted by demons, comforted by visions, instructed by prophecy, and sometimes delivered from sickness, danger, and death by the supplications of the Church. The real or imaginary prodigies of which they so frequently conceived themselves to be the objects, the instruments, or the spectators, happily disposed them to adopt with the same ease the wonders of the evangelic narratives; and thus miracles which did not exceed the measure of their own experience inspired them with the most lively assurance of mysteries which were represented to surpass the limits of their understanding. It is this deep impression of supernatural doctrines which has been so much celebrated under the name of faith; a state of mind described as the surest pledge of the divine favor, and of future felicity, and recommended as the first, perhaps the only real merit of a Christian. According to the more rigid Christian doctors, even to our own time, the moral virtues, which may be equally practised by infidels, are destitute of any value or efficacy in the work of our justification; a doctrine which is carried out to its full extent by the Jesuits, and by all who are of a like spirit in every Christian Church, and which not only bears its refutation on its face, but in the meanly immoral practices of many of its professors.

But the primitive Christians were accustomed to demonstrate their faith by their virtues; and it was justly supposed that the

divine persuasion which enlightened or subdued the understanding did at the same time purify the heart and direct the actions of the believer. The first apologists for Christianity who justify the innocence of their brethren, and the writers of a later age who celebrate the sanctity of their ancestors, display in the most vivid colors the reformation of manners which was introduced to the world by the preaching of the Gospel. It was a very ancient reproach of the Pagans against the Christians that the latter allured into their society the most atrocious and abandoned criminals, who, as soon as they were touched by a sense of remorse, were easily persuaded to wash away in the waters of baptism the guilt of their past conduct, for which the temples of the gods refused to grant them any expiation. But this seeming reproach, when cleared from misrepresentations, contributes perhaps as much to the honor as it did to the increase of the Church. The friends of Christianity may acknowledge without shame that many of their most eminent saints had been, previous to their baptism, abandoned sinners. Those persons who, in the world, followed, though perhaps imperfectly, the dictates of benevolence and propriety, derived such a calm satisfaction from the consciousness of their own rectitude as rendered them much less susceptible of the sudden emotions of shame, of grief, and of terror which have given birth to so many wonderful conversions. After the example of their divine master, as set forth in the Gospels, the Christian missionaries of this age did not disdain the society of men, and of women, oppressed by the consciousness and often by the effects of their vices. As they emerged from sin and superstition to the glorious hope of immortality they resolved to devote themselves to a life, not only of penitence but of virtue ; and the desire of perfection became the ruling passion of their soul. When the Christians of Bythinia were brought before the tribunal of the younger Pliny, under certain accusations, they assured the Proconsul that far from being engaged in an unlawful conspiracy, they were bound by a solemn obligation to abstain from the commission of those crimes which disturb the private or the public peace of society, from theft, robbery, adultery, perjury and fraud. And this blamelessness was admitted by the candid and enlightened Roman, so far as his opportunity of observing the Christians allowed him to judge. Near a century after this Tertullian with an honest pride, could boast that very few Christians had suffered by the hand of the executioner, except on account of their religion. Their serious and sequestered life, averse to the gay luxury of the age, inured them to chastity, temperance, economy, and all the sober and domestic virtues. The contempt of the world exercised them in the habits of humility,

meekness and patience. The more they were persecuted the more closely they adhered to each other. Their mutual charity and unsuspecting confidence has been remarked upon by infidels, and was too, often abused by perfidious friends. It is an honorable circumstance for the morals of the primitive Christians that even their faults, or rather errors, were derived from an excess of virtue. Some of the bishops and fathers of the Church, whose evidence attests, and whose authority might influence the professions, the principles, and even the practice of their contemporaries, had studied the Scriptures with less skill than devotion; and they often received in the most literal sense those rigid precepts of the Gospels to which succeeding commentators have applied a figurative mode of interpretation. Ambitious to exalt the perfection of the Gospel above the wisdom of philosophy, the zealous fathers have carried the duties of self-mortification, of purity and patience to a height which one would think scarcely possible for a human being to attain, much less to preserve. Aspiring to imitate the perfection of angels they disdained, or they affected to disdain, every earthly and corporeal delight. The first sensation of pleasure was marked as the first moment of the abuse of the senses. The candidate for heaven was instructed, not only to resist the grosser allurements of the taste or smell, but even to shut his ears against the harmonies of profane music, and to view with indifference even the most finished productions of human art. Gay apparel, magnificent houses, and elegant furniture were supposed to unite the double guilt of pride and of sensuality; a simple and mortified appearance was more becoming to the Christian, who was certain of his sins, and doubtful of his salvation. In their censures of luxury the fathers are exceedingly minute and circumstantial; and among the various articles which excite their pious indignation we may mention false hair, garments of any color except white, instruments of music, vases of gold and silver, downy pillows (as Jacob reposed his head on a stone), white bread, foreign wines, public salutations, the use of warm baths, and the practice of shaving the beard, which, in the language of Tertullian, is a lie against our own faces, and an impious attempt to improve the works of the Creator. When Christianity was introduced among the rich and polite, the observance of those rules was left to such as aspired to superior sanctity. But the virtue of the primitive Christians, like that of the primitive Romans, was to a large extent guarded by poverty and ignorance, since it can hardly be said that the less wealthy ranks of mankind can claim a merit for foregoing that which they are not able to possess; and still if men be real Christians (whether they be poor or rich) they are infinitely more content and godly without the use of luxuries. Modesty in

moderation is commendable in all, for it must be confessed that the poor in many cases are inclined to be more vain than they should be as well as the rich.

The fathers were correspondingly particular in the restraints which they imposed upon the commerce of the sexes. It was their unanimous sentiment that a first marriage was all that was requisite for the purposes of nature and of society. The marriage tie was defined as a resemblance of the mystic union between Christ and his Church, and was pronounced indissoluble either by divorce or death. The practice of second nuptials was branded with the name of a legal adultery, and the persons who were guilty of such a scandalous offence against Christian purity were excluded from the honors and from the alms of the Church. They considered a state of celibacy and a godly life as the nearest approach to the divine perfection. It was often with difficulty that ancient Rome could maintain the institution of six vestal virgins; but the primitive Church was filled with a great number of persons of either sex who had devoted themselves to the practice of perpetual chastity. A few of these occasionally, among whom we may reckon the celebrated Origen, judged it most prudent to disarm the tempter by marriage. Among the Christian ascetics, however (a name which from their peculiar manner of life they soon acquired), many, as they were less presumptuous were probably more successful. The loss of sensual pleasure was compensated in them by spiritual pride; and it was in praise of these chaste spouses of Christ that the Fathers have poured forth the stream of their eloquence. Such are the early traces of monastic principles and institutions which in a subsequent age counterbalanced all the advantages of Christianity.

While the primitive Christians inculcated the maxims of passive obedience they were not inclined to take any active part in the civil administration of the government, or the military service of the empire. This seeming indifference to the public welfare exposed them to the contempt and reproaches of the Pagans, who often asked what must be the fate of the Empire, attacked on all sides by the barbarians, if all the Roman citizens should adopt the pusillanimous sentiments of the new sect. To this reproachful question the Christian apologists returned obscure and ambiguous answers, as they were unwilling to reveal the secret cause of their security, the expectation that before the conversion of mankind was accomplished, war, government, the Roman Empire, and the world itself should be no more.

But though the primitive Christians were dead to the pleasures and business of the world, their love of action, which could not be

extinguished, found a new occupation in the government of the Church. The safety of their society, its advancement and honor produced in their minds a spirit of patriotism such as the early Romans had felt for the republic, and sometimes also of a similar indifference in the use of whatever means might probably conduce to so desirable an end. The ambition of elevating themselves to the honors and offices of the Church they disguised by the laudable profession of devoting to the public good the power and consideration which, for that purpose only, it became their duty to solicit. In the exercise of their office they were frequently called upon to detect the errors of heresy or the arts of faction, to oppose the designs of perfidious brethren, to stigmatize their characters with infamy, and to expel them from a society whose peace and harmony they had attempted to disturb. The ecclesiastical rulers of the Christians were taught to unite the wisdom of the serpent with the innocence of the dove: but as the former was subtile so the latter gradually became corrupted with the habits of government. In the Church, as in the world, those who were placed in any prominent station rendered themselves considerable by their eloquence and firmness, by their knowledge of mankind, and by their dexterity in business; and while they concealed from others, and perhaps from themselves, the secret motives of their conduct, they too frequently displayed all the turbulent passions of active life, which were tinctured with an additional degree of bitterness and obstinacy from the infusion of spiritual zeal.

Those who have studied the subject with candor and impartiality are of the opinion that those primitive Christians to whom the name of apostles is ascribed declined the office of legislation, and rather chose to endure some partial scandals and divisions than to exclude the Christians of future ages from the liberty of varying their forms of ecclesiastical government, according to the changes of time and circumstances. The scheme of policy which was adopted during the first century may be discovered from the practice of the Churches of Jerusalem, Ephesus, and Corinth. The Christian societies which were organized in the cities of the Roman Empire were united only by the ties of mutual faith and charity. Equality and independence formed the basis of their internal constitution. The want of discipline and human learning was partially supplied by the assistance of the prophets, who appear to have had their spiritual call to that function without distinction of sex or natural abilities, and who, as often as they felt the impulse of inspiration, poured forth their prophecies in the Christian assemblies. But these extraordinary gifts were frequently abused or misapplied by the prophetic teachers.

They displayed them at an improper season, presumptuously disturbed the service of the assembly, and by their misdirected zeal, or their vanity, they introduced into the Church of Corinth a long and melancholy train of disorders. As the institution of prophets became useless, and even harmful, their powers were withdrawn and their office abolished. The public functions of religion were then solely entrusted to the established ministers of the Church, the bishops and presbyters; two appellations which in their first origin appear to have distinguished the same office and the same order of persons. The name presbyter was expressive of their age, or rather of their gravity and wisdom. The title of bishop (ἐπίσκοπος) denoted their inspection over the faith and morals of the Christians who were committed to their pastoral care. In proportion to the number of the faithful in the infant congregations a larger or a smaller number of these episcopal presbyters guided with equal authority and united counsels.

But the most perfect equality of freedom requires the directing hand of an acknowledged superior; and the order of public proceedings soon introduced the office of a president, at least, with the authority of collecting the sentiments, and of executing the resolutions of the assembly. A regard for the public order and tranquillity which would have been so frequently interrupted by annual, or by occasional elections, induced the primitive Christians to constitute an honorable and perpetual rulership, and to choose one of the wisest and the most holy among their presbyters, to execute during his life the duties of their ecclesiastical Governor. It was under these circumstances that the lofty title of bishop began to raise itself above the humble appellation of presbyter or elder; and while the latter remained the most natural distinction for the members of every Christian senate, the former was appropriated to the dignity of its new president. The episcopal form of government, which appears to have been instituted before the end of the first century, was adopted without delay by all the societies which were already scattered over the Empire, had acquired in an early period the sanction of antiquity, and is still looked upon by the most numerous branches of the Christian Church as a primitive and even a divine institution. It need hardly be observed that the pious and humble presbyters or elders, who were first dignified with the title of bishop, could not possess, and would probably have rejected the power and pomp which afterwards pertained to the Roman Pontiffs, or now pertain to a German or English prelate. Their jurisdiction, which was originally of a spiritual, though in most cases of a temporal nature also, we may define in a few words. It consisted in the administration of

the sacraments and discipline of the Church, the superintendence of religious ceremonies, which insensibly increased in number and variety, the consecration of ecclesiastical ministers, to whom the bishop assigned their respective functions, the management of the public fund, and the determination of all such differences as the faithful were unwilling to expose before the tribunal of an idolatrous judge. These powers, during a short period, were exercised according to the advice of the college of presbyters, and with the consent and approbation of the assembly of Christians. The primitive bishops were considered as only the first of their equals, and as the honorable servants of a free people. Whenever the episcopal chair became vacant by death, a new president was chosen among the presbyters by the suffrages of the whole congregation, every member of which supposed himself invested with a sacred and sacerdotal character in respect to holiness and virtue. Such was the mild and equal constitution by which the Christians were governed for more than a hundred years after the first introduction of Christianity. Every society formed within itself a separate and independent republic; and, although the most widely separated of these little states maintained a mutual and friendly intercourse of letters and deputations, the Christian world was not yet connected by any supreme authority or legislative council. As the numbers of the faithful gradually multiplied they discovered the advantages which might result from a close union of their interests and designs. Towards the end of the second century the Churches of Greece and Asia adopted the institution of provincial synods. It was soon established as a custom and as a law that the bishops of the independent Churches should meet in the capital of each province at the stated periods of spring and autumn. They were assisted in their deliberations by the advice of a few distinguished presbyters, and attended by the presence of a listening multitude. Their decrees, which were styled canons, regulated every important controversy of faith and discipline. The institution of synods was so well suited to private ambition and to public interest that, in the space of a few years, it was adopted throughout the whole Empire. A regular correspondence was established between the provincial councils, which mutually communicated and approved their respective proceedings, and the universal Christian Church soon assumed the form and acquired the strength of a great federative republic.

As the legislative authority of the several Churches was insensibly superseded by the use of councils, the bishops obtained by their alliance a much larger share of executive and arbitrary power; and as soon as they became connected by a sense of their common

interest they were enabled to attack, with combined vigor, the original rights of their clergy and people. The bishops of the third century imperceptibly changed the language of exhortation into that of command, scattered the seeds of future usurpations, and supplied by Scripture metaphor and declamatory rhetoric their deficiency of force and reason. They magnified the unity and power of the Church as it was represented in the episcopal office, of which each bishop enjoyed an equal portion. Princes and magistrates, it was often repeated, might boast a claim to a transitory earthly dominion; but it was the episcopal authority alone which was derived from the Deity, and extended itself over this and over another world. The bishops were the vicegerents of Christ, the successors of the apostles, and the mystic substitutes of the high priests of the Israelitish Church. By their exclusive privilege of conferring the sacerdotal order, they invaded the freedom of the clerical elections; and if, in the administration of the Church, they still consulted the judgment of the elders, or the inclination of the people, they took great care to inculcate the merit of such a voluntary condescension. The bishops acknowledged the superior authority which resided in the assembly of their brethren; but in the government of his peculiar diocese, each of them exacted from his flocks the same implicit obedience as if that favorite metaphor had been literally just, and as if the shepherd were of a superior nature to that of his sheep. This obedience, however, was not imposed without some efforts on one side and some resistance on the other. The democratic part of the constitution was, in many places, very warmly supported by the zealous or interested opposition of the inferior clergy. But their patriotism received the ignominious epithets of faction and schism; and the episcopal cause was indebted for its rapid progress to the labors of many active prelates who, like Cyprian of Carthage, could reconcile the arts of a most ambitious statesman with the Christian virtues which secured him the character of a saint and martyr.

The same causes which at first operated to destroy the equality of the presbyters introduced among the bishops a pre-eminence of rank and from thence a superiority of jurisdiction. As often as they met in the provincial synod, which happened each spring and autumn, the difference of personal merit and reputation was very sensibly felt among the members of the assembly and the multitude was governed by the wisdom and eloquence of the few. But the order of public proceedings required a more regular and less individious distinction; the office of perpetual presidents in the councils of each Province was conferred upon the bishops of the principal cities; and these aspiring prelates, who soon acquired the lofty titles of Metro-

politans and Primates, secretly prepared themselves to usurp over their episcopal brethren a like authority to that which the bishops had so lately assumed above the college of presbyters. Nor was it long before an emulation of pre-eminence and power prevailed among the Metropolitans themselves, each of them affecting to display in the most pompous terms the temporal honors and advantages of the city over which he presided; the number and wealth of the Christians that were subject to their pastoral care; the saints and martyrs that had arisen among them; and the purity with which they had preserved the orthodox faith as it had been handed down through a series of bishops from the apostle or apostolic disciple to which the founding of their church was ascribed. From every cause either of a civil or of an ecclesiastical nature it was easy to foresee that Rome must enjoy the respect, and might soon claim the obedience of the provinces. The Roman Church was the greatest, the most numerous, and, in regard to the west, the most ancient of the Christian establishments, many of which had been founded by the labor of her missionaries. Instead of one apostolic founder, the utmost boast of Antioch, or Corinth, or Ephesus, the city of the seven hills was supposed to have been honored with the preaching and martyrdom of two eminent apostles; and the bishops of Rome ingeniously claimed the inheritance of whatsoever prerogatives were attributed either to the person or the office of St. Peter. The bishops of Italy and the provinces were disposed to allow them a primacy of order and association (such was the way they expressed it) in the Christian aristocracy. But the power of a monarch was rejected with abhorrence, and the aspiring genius of Rome encountered with the nations of Asia and Africa a more determined resistance to her spiritual than she had formerly to her temporal dominion. The bishop of Carthage, the patriotic Cyprian, who himself ruled with the most absolute sway the Church of Carthage and the provincial synods, opposed with resolution and success the ambition of the Roman bishops, artfully connected his own cause with that of the Eastern bishops, and like Hannibal, sought out new allies in the heart of Asia. If this Punic war was carried on without any blood being shed it was owing much more to the weakness than to the moderation of the contending parties. Invectives and excommunications, which were their only weapons, they hurled at each other during the whole controversy with equal fury and devotion.

The progress of ecclesiastical authority gave rise to the distinction of the clergy and laity, which had before been unknown to the Greeks and Romans. The latter of these appellations comprehended the great mass of the Christian people, the former that select portion

which had been set apart for the service of religion; a class of men which has formed an important, though not always an edifying subject of history. These mutual hostilities sometimes disturbed the peace of the early Church; but their zeal and activity advanced the common cause, and the love of power, which, under the most plausible disguises, could insinuate itself into the breast of bishops and martyrs, impelled them to increase the number of their subjects, and to enlarge the extent of the Christian Empire. They were, during the period we are considering destitute of any temporal force, and for a long time discouraged and depressed, rather than assisted by the civil magistrate; but they had acquired, and they employed within their own society, the two most effectual instruments of power, rewards and punishments; the former derived from the pious contributions, the latter from the spiritual apprehensions of their people.

The way in which baptism was performed in the primitive Church appears from the strongest historical evidence to have been by immersion. Dr. Mosheim, in his Church history, in speaking of the first century, says; "The sacrament of baptism was administered in this century without the public assemblies, in places appointed and prepared for the pnrpose, and was performed by immersion of the whole body in the baptismal font.

At first it was usual for all who labored in the propagation of the Gospel to be present at that solemn ceremony; and it was also customary that the converts should be baptized and received into the Church by those under whose ministry they had embraced the Christian doctrine. But this custom was soon changed. When the Christian Churches were well established and governed by a system of fixed laws, then the right of baptizing converts was vested in the bishop alone. This right, indeed, he conferred upon the *presbyters* and *chorepiscopi*, or *country bishops*, when the bounds of the Church were still further enlarged, reserving, however, to himself the *confirmation* of the baptism which was administered by a presbyter. There were doubtless several circumstantial rites and ceremonies observed in the administration of this sacrament for the sake of order and decency. Of these, however, it is not easy, nor perhaps possible, to give a certain or satisfactory account, since upon this subject we are too much exposed to the illusion which arises from confounding the customs of the primitive times with those of succeeding ages." *

In speaking of the practice of the same right in the second century he says: "The sacrament of baptism was administered publicly twice every year at the festivals of Easter and Pentecost, or Whit-

* Mosheim's Ecclesiastical Hist. Cent. I.

suntide, either by the bishop, or the presbyters, in consequence of his authorization and appointment. The persons that were to be baptized, after they had repeated the creed, confessed and renounced their sins, and particularly the devil and his pompous allurements, were immersed under water, and received into Christ's kingdom by a solemn invocation of Father, Son, and Holy Spirit, according to the express command of our blessed Lord. After baptism they received the sign of the cross, were anointed, and by prayer and imposition of hands were solemnly commended to the mercy of God, and dedicated to his service, in consequence of which they received milk and honey, which concluded the ceremony. The reason of this particular ritual coincides with what we have said in general concerning the origin and multiplied ceremonies that crept from time to time into the Church." * In speaking of the same rite in the third century, he says: "There were twice a year stated times when baptism was administered to such as, after a long course of trial and preparation, offered themselves as candidates for the profession of Christianity. This ceremony was performed only in the presence of such as were already initiated into the Christian mysteries. The remission of sins was thought to be its immediate and happy fruit, while the bishop, by prayer and the imposition of hands, was supposed to confer those sanctifying gifts of the Holy Spirit that are necessary to the life of righteousness and virtue. We have already mentioned the principal rites that were used in the administration of baptism; and we have only to add that none were admitted to this solemn ordinance until by the menacing and formidable shouts of the exorcist they had been delivered from the dominion of the prince of darkness and consecrated to the service of God.

The driving out of this demon was *now* considered as an essential preparation for baptism, after the administration of which the candidates returned home adorned with crowns and arrayed in white garments as sacred emblems, the former of their victory over sin and the world, and the latter of their inward purity and innocence." † In speaking of the same right in the fourth century, after the Christian religion was established in the Empire, he says: "Baptismal fonts were now erected in the porch of each Church for the more commodious administration of that initiating sacrament. Baptism was administered during the vigils of Easter and Whitsuntide, with lighted tapers, by the bishop, and the presbyters commissioned by him for that purpose. In cases, however, of urgent necessity, and in such only, a dispensation was granted for performing that sacred

* Mosheim's Ecclesiastical Hist. Cent. II. † Id. Cent. III.

rite at other times than those now mentioned. In some places salt was employed as a symbol of purity and wisdom, and was thrown with this view into the mouth of the person baptized: and a double unction was everywhere used in the celebration of this ordinance, one preceding its administration, and the other following it. The persons who were admitted into the Church by baptism were obliged, after the celebration of that holy ordinance, to go clothed in white garments during the space of seven days." * And in his history of the Church in the eleventh century we find a passage which implies or proves that baptism by immersion was the rule even at that late period. Here, in a controversy that took place between the Greek and Latin Churches, Cerularius, the patriarch of Constantinople, complains among other things, "that in the rite of baptism they (the Latins) confined themselves to one single immersion." † At what time the baptism by sprinkling was introduced does not appear, but it may have been practised to some extent all along in the ages after Constantine. Granting all that has here been said with respect to the manner of baptism in the primitive Church, we still remark that carnal ordinances, however performed, are of no account in comparison with regeneration, which baptism symbolizes, and which is the all-important thing Christianity has in view to achieve. Circumcision is nothing; uncircumcision is nothing; but the keeping of the commandments of God is everything.

The way in which the Lord's Supper was administered in the primitive Church was as follows: "The professors, according to their means, brought with them oblations of bread and wine and other things which they offered as gifts to the Lord; and hence both the ministers of the Church and the poor derived their subsistence. Of the bread and wine presented in these offerings such a quantity was separated from the rest as was required in the administration of the Lord's Supper. This was consecrated by certain prayers pronounced by the bishop, to which the people assented by saying: *Amen.* The Holy Supper was distributed by the deacons, and this sacred rite was, in some churches, followed by the Agapæ, or feasts of love, which in other churches preceded it." By this it plainly appears that the Christian priesthood was designed to be a substitute for the Jewish priesthood (the Christian bishop being the substitute for the Jewish high-priest, the presbyters for the priests, and the deacons for the Levites); and that the Lord's Supper represented the whole sacrificial ritual of the Jews, consisting of popular oblations and priestly sacrifices. The primitive mode of celebrating the Lord's Supper, as

* Mosheim's Ecclesiastical Hist. Cent. IV. † Id. Cent. XI.

given above, was much altered in course of time, and was also considerably varied according to locality.

We do not find that a community of goods was practised in the primitive Church, at least to any noticeable extent; the converts who embraced the new religion were permitted to retain the possession of their property, to receive bequests and inheritances, and to increase their separate property by all the lawful means of trade and industry. Instead of an absolute sacrifice, a moderate portion was accepted by the clergy; and in their weekly or monthly assemblies every believer, according to the measure of his wealth or the exigency of the occasion, presented his voluntary offering for the use of the common fund. Nothing, however inconsiderable, was refused, but it was diligently inculcated that in the article of tithes the Mosaic law was still of divine obligation, and that since the Jews, under a less perfect dispensation, had been commanded to pay a tenth part of all they possessed, it would become the disciples of Christ to distinguish themselves by a superior degree of liberality, and to acquire some merit by resigning a superfluous treasure which must so soon be annihilated with the world itself. The bishop was the natural steward of the Church; the public stock was entrusted to his care without account or control; the presbyters were confined to their spiritual functions, and the more dependent order of the deacons was solely employed in the management and distribution of the ecclesiastical revenue.

If the vehement declamations of Cyprian are to be credited, there were too many among his African dispensing brethren who, in the execution of their charge violated every precept, not only of evangelical perfection, but even of moral virtue. By some of these unfaithful stewards, the riches of the Church were lavished in sensual pleasures, by others they were perverted to the purposes of private gain, of fraudulent purchases and rapacious usury. But it appears reasonable that as long as the contributions of the Christian people were free and unconstrained, the abuse of their confidence could not have been very frequent, and the general uses to which their donations were applied reflected honor on the religious society. A decent portion was reserved for the maintenance of the bishop and his clergy; a sufficient sum was set apart for the expenses of the public worship, of which the *agapæ*, or feasts of love, as they were called, constituted a pleasing part. The whole remainder was reserved for the poor.

According to the discretion of the bishop, it was distributed to support widows and orphans, the lame, the sick, and the aged of the community; to supply the wants of strangers and pilgrims, and to alleviate the misfortunes of prisoners and captives, more especially when their sufferings had been occasioned by their firm attachment

to the cause of religion. A generous intercourse of charity united the most distant provinces and communities, and the smaller congregations were cheerfully assisted by the alms of the more wealthy. Such an institution, which paid less regard to the merit than to the distress of the object, very materially conduced to the spread of Christianity. The humane among the Pagans, while they derided the doctrines, acknowledged the benevolence of the new sect. The prospect of speedy succour and of future protection allured into its hospitable fold many unhappy persons whom the neglect of the world would have abandoned to want, sickness, and old age. There is also some reason to believe that numbers of infants who, according to the inhuman practice of these times, had been exposed by their parents, were frequently rescued from death, baptised, educated, and maintained by the pious charity of the Christians.

Every society has the right of excluding from its numbers such of its members as reject or violate those regulations which have been established by general consent. In the exercise of this power, the primitive Christian Church directed its censures chiefly against scandalous sinners, and particularly those who were guilty of murder, fraud, or incontinence; against the authors or the abettors of any heretical opinion which had been condemned by the judgment of the episcopal order: and against those unhappy persons who, whether from choice or compulsion, had practised after their baptism any act of idolatrous worship. The consequences of excommunication were of a temporal as well as a spiritual nature. The Christian against whom it was pronounced was deprived of any part in the common fund. The ties both of religion and private friendship were to him dissolved, and he found himself shunned and suspected by those whom he had esteemed, or by whom he had been beloved. The situation of these exiles was in itself very painful and melancholy, and their apprehensions must in some cases at least have far exceeded their sufferings; for in the state of their knowledge then they could hardly erase from their minds the awful impression that these ecclesiastical governors, by whom they were condemned, possessed as the prerogative of their office the keys of hell and heaven. But the heretics who might be supported by the conscious rectitude of their intentions, and by the flattering hope that they alone had discovered the true way of salvation, endeavored to regain in their separate assemblies those comforts, temporal as well as spiritual, which they no longer enjoyed from the great societies. But almost all those who had reluctantly yielded to the allurements of vice and idolatry were sensible of their fallen condition, and anxiously desired to be restored to Christian communion.

With respect to the treatment of these penitents two opinions, the one of justice, the other of mercy, divided the Primitive Church. The more rigid casuists refused them forever the meanest place in the community which they had disgraced or deserted; and leaving them to the remorse of a guilty conscience indulged them only with a faint ray of hope that the repentance of their life might possibly be accepted by the Deity in lieu of eternal salvation. A milder sentiment was embraced in practice as well as in theory by the purest and most respectable of the Christian Churches. The door of reconciliation was seldom shut against the returning penitent, but a severe form of discipline was instituted, which, while it served as an expiation of his crime, might powerfully deter the spectators from imitating his example. Humbled by a public confession, emaciated by fasting, and clothed in sackcloth, the penitent lay prostrate at the door of the assembly, imploring with sighs and tears the pardon of his offences, and soliciting the prayers of the faithful. If the fault was of a very heinous character, whole years of penance were esteemed an inadequate satisfaction to the divine justice; and it was always by slow and painful gradations that the sinner, the heretic, or the apostate was admitted into the bosom of the Church. A sentence of perpetual excommunication was, however, reserved for some crimes of an extraordinary magnitude, and particularly for the inexcusable relapse of those penitents who had already experienced and abused the mercy of their ecclesiastical superiors. The exercise of the Christian discipline was varied according to the circumstances or the number of the guilty.

Of the number of Christian martyrs who suffered for their principles under the rule of the pagan Emperors it is difficult to make a true estimate, since we have to rely only on the statements, often exaggerated, of ecclesiastical historians of the fourth or fifth centuries, who appear to have ascribed to the magistrates of Rome the same degree of implacable and unrelenting zeal as actuated themselves against the heretics or the polytheists of their own times. The celebrated number of ten persecutions has been determined by the ecclesiastical writers of the fifth century, who possessed a more distinct view of the prosperous or adverse fortunes of the Church from the time of Nero to that of Diocletian. The ingenious parallels of the ten plagues of Egypt and of the ten horns of the Apocalyptic beast, appears to have first suggested this calculation to their minds; and in their application of the fulfilment of prophecy to the events of history they carefully selected those reigns, which were in fact the most hostile to the Christian cause. The martyrs devoted to death by the Roman magistrates were selected from opposite extremes.

They were either bishops and presbyters, the persons most distinguished among the Christians for their rank and influence, and whose example might strike terror into the whole sect; or else they were the meanest and most abject among them, especially those of the servile condition, whose lives were esteemed by the ancients of little value, and whose sufferings were wont to be viewed by them with too much indifference. The learned Origen, who was intimately acquainted with the history of the primitive Christians, declares in express terms, that the number of martyrs was very inconsiderable when compared with the whole number of Christians. This general assertion of Origen obtains an illustration in the particular testimony of Dionysius, who, in the great city of Alexandria, and under the reign of Decius, reckons but ten men and seven women who suffered for the profession of Christianity. The ecclesiastical writers before the fourth century content themselves with pouring forth a liberal effusion of loose and tragical invectives, without ascertaining or stating the precise number of Christians who were permitted to seal with their blood their belief of the Gospel. From the history of Eusebius, an ecclesiastical writer of the fourth century, it may be gathered that only nine bishops were punished with death in the violent persecution of Diocletian, his associates and successors. And in his particular enumeration of the martyrs of Palestine he appears to state that in that province no more than ninety-two Christians were entitled to the appellation of martyrs; but from other statements it is inferred there may have been a greater number. From the latter particular statement an important, though perhaps not very probable conclusion has been formed. According to the distribution of the Roman provinces, Palestine may be considered as about a sixteenth part of the Eastern Empire; and since there were some Governors in some of the provinces who had kept their hands unstained with the blood of the Christians, it has been concluded that the country which gave birth to Christianity produced at least a sixteenth part of the martyrs of the Eastern Empire in that persecution. The whole number, it is thought, might consequently amount to about fifteen hundred, a number which, if it be equally divided between the ten years of this persecution, will allow for each year about one hundred and fifty martyrs. Giving the same proportion to the provinces of Africa, Italy, and perhaps Spain, where at the end of two or three years the rigor of the penal laws was either suspended or abolished, the number of Christians in the Roman Empire, on whom a capital punishment was inflicted by a judicial sentence during this persecution, will be about two thousand. Since doubtless the Christians were more numerous and their enemies more

exasperated in the time of Diocletian, than they had ever been in any former persecution, this probable computation may teach us to estimate approximately the number of primitive Christians who may have sacrified their lives for the purpose of introducing Christianity into the world.

The following circumstances tend to show that the treatment of Christians who were apprehended by the officers of the government, was not altogether so intolerable as it might be imagined to have been. I: The Christians who were condemned as a penalty to work in the mines were permitted, through the humanity or neglect of their keepers, to build chapels, and freely to exercise their religion in the midst of their dreary habitations. 3: The bishops were obliged to check or censure the forward zeal of the Christians who voluntarily threw themselves into the hands of the magistrates. Some of those were persons oppressed by poverty and debts, who impetuously sought to terminate a miserable existence by a glorious death. Others were allured by a hope that a short confinement would expiate the sins of a whole life; and others still were actuated by the less honorable motive of deriving a plentiful subsistence, and perhaps a considerable profit, from the alms which the people through charity bestowed on the prisoners. After the Church had triumphed over all her enemies, the interest as well as vanity of the captives appears to have prompted them to magnify the merit of their respective sufferings. A convenient distance of time and space gave an ample scope to the progress of fiction; and the frequent instances which had been alleged of holy martyrs whose wounds had been instantly healed, whose strength had been renewed, and whose lost members had been miraculously restored, were found extremely convenient for the purpose of removing every difficulty, and of silencing every objection. The most extravagant legends, as they tended to the honor of the Church, were applauded by the credulous multitude, countenanced by the clergy, and attested by the suspicious evidence of ecclesiastical history; and thus a multitude of real or fictitious martyrs were objects of the worship of after ages.

We shall conclude this sketch by a melancholy truth which obtrudes itself on our mind, which has been seen and will be seen more fully from statements in this book; that, even admitting without hesitation or question all that ecclesiastical history has recorded or devotion has feigned concerning the subject of martyrdoms, it must still be acknowledged that the Christians, in the course of their intestine dissensions, have inflicted immensely greater severities on each other than they had experienced from the persecutions of Pagans or in

fidels. During the dark ages which followed the subversion of the Roman Empire in the west, the Popes of Rome extended their dominion over the laity as well as the clergy of the Latin Church. The fabric of superstition which they had built up, and which might long have defied the feeble efforts of reason, was at length assaulted by a crowd of daring men who, from the twelfth to the sixteenth century, assumed the popular character of Reformers. The Church of Rome defended by violence the Empire which she had acquired by deception and fraud; a system of pretended peace and benevolence was soon characterized by wars, massacres, and the institution of the "Holy Inquisition." As the reformers were animated by the love of civil, as well as of religious freedom, the Catholic princes connected their own interest with that of the clergy, and enforced by fire and the sword the terrors of spiritual censures. In the Netherlands alone, more than one hundred thousand of the subjects of Charles V. are said to have suffered by the hand of the executioner, and this extraordinary number is attested by Grotius, a man of learning and genius, who appears to have preserved his moderation amid the fury of contending sects, and who wrote the annals of his own age and country at a time when the art of printing had facilitated the means of intelligence and increased the danger of detection. If we may believe the authority of Grotius, we must allow that the number of Protestants who were executed in a single small province, and in a single reign, far exceeded that of the primitive martyrs in the space of three centuries, and in the whole Roman Empire. But if the improbability of the fact itself should prevail in our minds over the weight of evidence; if Grotius should happen to be convicted of exaggerating, which does not yet appear to have taken place, we shall all be naturally led to inquire what confidence can be placed in the doubtful and imperfect records of ancient credulity. What degree of credit can be given to a courtly bishop or to a passionate or exaggerating declaimer, * who, under the patronage and protection of Constantine, enjoyed the exclusive privilege of recording the persecutions inflicted on the primitive Christians by the disregarded predecessors or vanquished rivals of their gracious sovereign?

* Eusebius and the author of the Treatise *De Mortibus Persecutorum.*

An Explanation of Revelation XIII to verse 11, showing its fulfilment in the Catholic Christian Church and State System, established at Constantinople by Constantine and his successors, with reference to the Parallel Prophecies of the Book of Daniel.

We are now come to the point of time at which the established religion of the Roman Empire was changed from Paganism to Christianity under Constantine and his successors; and in order the better to elucidate this part of our subject, we shall turn to the XIIIth chapter of the book of Revelation, and illustrate its fulfilment historically in the two general systems of the Christian religion, or rather the two systems of which this religion formed a constituent part: *first*, that system of Church and State as established and practised by Constantine and his successors in the Roman Empire: and *second*, that established by the Protestant reformers and princes in the sixteenth century, and still adhered to by their successors. The first ten verses relate to the former, the remaining part of the chapter to the latter system. Rev. ch. XIII., verse 1: "And I stood upon the sand of the sea, and saw a beast rise up out of the sea, having seven heads and ten horns; and upon his horns ten crowns (lit. diadems), and upon his heads names (not the name) of blasphemy."

Here the prophet in his vision conceives himself standing upon the sandy sea-shore, and looking abroad upon the waters he sees a wild beast θηρίον rising up out of the sea. This corresponds somewhat with Daniel's vision of the four beasts coming up successively out of the sea, the last of which we understand in a sense to represent the same with this: (See Dan. ch. VII.) This last beast has seven heads and ten horns, crowned: that in Daniel is not represented as having seven heads, but as having ten horns which are not said to be crowned. That in Daniel symbolized the whole Roman Empire, considered as a power or government, Pagan as well as Christian, and comprising both the civil and religious branches of power. This represents the whole Christian Roman empire, also considered as a power or government, and likewise comprising both the civil and religious branches of power. The seven heads would here symbolise the whole Roman Empire as distinguished from any part of it united under one ruler; also they would indicate the completeness of human wisdom as distinguished from what individual men possess; and, further, the number seven would indicate the sacred and secular elements, or in the ancient idea, the divine and human combined. The character of this wisdom, whether beastly and serpentine, or belonging to the true man, and godlike, has to be de-

termined from the other parts of the symbolic figure, of which the heads form a constituent part. The ten horns would represent the Empire to be made up of many different nations, which are severally governed by dependent rulers; and the horns being crowned, or encircled with diadems, would indicate these rulers, at least for the most part, to be crowned kings. The number ten would represent all the nations and their kings or rulers that would at any time be subject to the Roman Empire.* Having on his heads names of blasphemy indicates that the supreme ruler of the Empire would arrogate to himself the honors which belong only to the Deity; and also that there would be blasphemous systems of worship established throughout the Empire.

As Constantine was the first Roman Emperor that was called a Christian, and as under him and his immediate successors the change of the national religion from Pagan to Christian was brought about, we think it expedient to make our readers acquainted with the principal events in the life, and the principal points in the character of that Emperor. This celebrated man was the son of Constantius, who was joint Emperor of the Romans with Galerius, Maximin, and Diocletian. The last-named was considered as supreme Emperor; the three former were subordinate Emperors, that is, they governed their several divisions of the Empire in obedience to the great central authority vested in Diocletian. Thus Galerius was Emperor of the East and of Egypt; Maximan of Italy and Africa; and Constantius of Gaul and Britain.

Helena, the mother of Constantine, history decides to have been the daughter of an innkeeper, and Constantine to have been born most probably at Naissus, in Dacia, which last was a province of the Empire extending along and stretching far inwards on both sides of the Danube. The city of Naissus was situated south of that river. The birth of Constantine is said to have occurred about the year 274 A. D. When he was come to a mature age he did not follow his father Constantius to the West, but remained in the service of Diocletian, signalized his valor in the wars of Egypt and Persia, and gradually rose to the station of a tribune of the first order. The figure of Constantine was tall and majestic; he was dexterous in all his exercises; courageous in war, affable in peace; in his whole conduct the active spirit of youth was tempered with habitual prudence;

* That this is so you may perhaps judge if you are informed that out of five different lists given in Newton's Dissertations on Prophesy, each giving the particular nations which the writer supposed to make up the ten, no two of them agree. But a notable error which all Protestant interpreters that we are acquainted with have committed was in confounding the symbolic beast of Revelation XIII. with that of Revelation XVII. and that of Daniel VII. There needs a very perceptible distinction to be made.

and while his mind was engrossed with ambition he appeared cold and insensible to the allurements of pleasure. Through the entreaties of his father he was at length induced to visit him at his seat of government in the West, and performing his journey from Asia Minor, he reached the port of Boulogne, at the moment when his father was preparing to embark for Britain. Having accomplished the British expedition and an easy victory over the barbarians of Caledonia, Constantius ended his life in the imperial palace in the city of York. His death was immediately succeeded by the elevation of Constantine, who was declared Emperor by the voice of the soldiers, on July 25th, A. D., 306. The soldiers were effectually solicited in behalf of the son of their deceased Emperor. They were asked whether they would hesitate for a moment between placing Constantine at their head, and the ignominy of calmly awaiting the arrival of some obscure stranger, on whom it might please Galerius, Emperor of the East, (Diocletian having ere now retired from office) to bestow the armies and provinces beyond the Alps. He artfully contrived not to show himself to the soldiers until they were prepared to salute him with the titles of Emperor and Augustus. The decent resistance which he chose to affect to the willingness of the soldiers was intended to justify his usurpation; nor did he yield to the acclamations of the army till he had prepared an epistle, which he immediately dispatched to Galerius. Constantine informs him of the melancholy event of his father's death, modestly asserts his natural right to the succession, and respectfully laments that the affectionate violence of his troops does not permit him to solicit the Imperial purple in the regular and constitutional manner. Without either condemning or ratifying the choice of the British army, Galerius accepted the son of his deceased colleague as the sovereign of the provinces beyond the Alps; but he gave him only the title of Cæsar, and the fourth rank among the Roman princes, while he conferred the vacant place of Augustus upon his favorite Severus. At the time of his assumption of Imperial power at York, Constantine had reached the age of thirty-two years, and in the space of eighteen years after, he, by a succession of victories, vanquished the power and persons of three rival Emperors, and in the year 324 A. D. was recognized sole Emperor of the Romans. The foundation of Constantinople, and the establishment of the Christian religion, were the immediate and memorable consequences of this revolution.

The accounts transmitted to us of the date and probable cause of the *conversion* of Constantine are various. Lactantius, an ecclesiastic of his court, appears impatient to proclaim to the world the glorious example of the sovereign of Gaul, who, in the first moments of

his reign, acknowledged the true and only God. Eusebius, another ecclesiastic of the same court, has ascribed the conversion of Constantine to a miraculous sign which he saw displayed in the heavens whilst he meditated and prepared the expedition which resulted in the conquest of Maxentius and of Italy. A contemporary writer affirmed, with the most perfect confidence, that in the night which preceded the last battle against Maxentius, Constantine was admonished in a dream to inscribe the shields of his soldiers with the celestial sign of God, the sacred monogram of the name of Christ: that he executed the commands of heaven, and that his obedience and valor were rewarded by the decisive victory of the Milvian Bridge. Nine years after his conquest of Rome, Nazarius describes an army of divine warriors, who seemed to fall from the sky ; he marks their beauty, their spirit, their gigantic forms, the stream of light which shone from their celestial armor, and their declaration that they were sent, that they flew to the assistance of the great Constantine. Eusebius says that in one of the marches of Constantine "he is reported to have seen with his own eyes the luminous trophy of the cross placed above the meridian sun, and inscribed with the following words: By This Conquer. This amazing object in the sky astonished the whole army as well as the Emperor himself, who was yet undetermined in the choice of a religion; but his astonishment was converted into faith by the vision of the ensuing night. Christ appeared before his eyes, and displaying the same celestial sign of the cross, he directed Constantine to frame a similar standard, and to march with an assurance of victory against Maxentius and all his enemies."

Such are some of the causes which are ascribed by historians for the conversion of Constantine to the Christian religion ; and any candid mind may determine for itself whether that spirit corresponds to the spirit of Christ, which incites a man to the slaughter of his fellow-men ; or enquire why Christ did not come to him with a sword in his hand, and tell him to conquer by that. We must all allow that if God's spirit represented to him a cross, and told him to conquer by that, and he afterwards conquered by the sword and the horrors of war, he must have misunderstood or misapplied the lesson the vision was designed to teach him. The cross, in vision or otherwise, indicates the self-denying and benevolent spirit of the Gospel. But Constantine made a real sign of the visionary cross, and set it up as a standard to fight under; and in this he manifested the very spirit of the Catholic Christianity he established, by instituting an outward sign or representation of Christ, under which he could act in direct opposition to the nature and spirit of the Lamb of God.

From this time onward the cross was highly esteemed by the Romans; it was carried at the head of their armies: it was inscribed upon the shields of the soldiers: it was used as a preservative from every species of temporal and spiritual evil, by all classes of the citizens; and it became the object of the superstitious veneration of all.

Constantine came to the throne of the Empire through seas of blood; and like some other great conquerors, he appears to have used religion as a footstool in his ascent to it. His public and private character do not justify the belief that he was a sincere convert to Christianity. "It must indeed be confessed," says Mosheim,* "that the life and actions of this prince were not such as the Christian religion demands from those who profess to believe its sublime doctrines. It is also certain that from his conversion to the last period of his life he continued in the state of a *catachumen*, and was not received by baptism into the number of the faithful until a few days before his death, when that sacred rite was administered to him at Nicomedia, by Eusebius, bishop of that place.—For it was the custom of many in this century to put off their baptism till the last hour, that thus immediately after receiving, by this rite, the remission of their sins, they might ascend pure and spotless to the mansions of life and immortality." Thus the whole life of those Catholic Christians might be spent in a manner, however diabolical and depraved; and their sins, however numerous and aggravated, might be washed away immediately before their death by the purifying virtues of the waters of baptism, so that they could ascend pure and spotless to the mansions of life and immortality. What doctrine could be more hypocritical and blasphemous than this? The Christian writers of all ages since his time, both Catholic and Protestant, are wont to speak in rather exalted terms of the character of Constantine, the cause of which is, that he supported and established the Christian religion. But however this may be, the history of his time proves him to be, not only a crafty and cunning man, but a cruel and relentless tyrant. The former part of his life was exercised in bloody wars; the latter was spent in arrogance and effeminate pride, and in the display of a suspicious, cruel, and merciless disposition. The wanton murder of his son Crispus in the year after he had convened the council of Nice, leaves an indelible stain upon his memory. The cause of the death of Crispus was nothing more than jealousy and suspicion on his part, on account of the esteemed merits and popularity of his son. The testimony of history is that he first bribed informers to testify against

* Mosheim's Ecclesiastical History; Century IV.

the prince, and the result was Crispus suffered a cruel and ignominious death. After several battles fought between Constantine and the Emperor Licinius, who was his brother-in-law, to decide which of them should be greatest, the latter was reduced to the necessity of throwing himself at the victor's feet and imploring his clemency, which, however, he did not long enjoy, for he was strangled by the order of Constantine in the year 325 A. D., the same year in which was held the Council of Nice. Much has been said about David murdering Uriah, that he might obtain his wife; but David only had Uriah placed in front of the battle, yet it is called murder; then what shall be said of the conduct of Constantine, or this great man-child of Christian writers (see Rev. XII.) towards his former colleague, his kinsman, and now humble suppliant, Licinius, in ordering him to be strangled to get him out of his way? Lardner observes that "many ancient writers charge Constantine with a breach of faith in this matter." But these are not the only crimes of the kind alleged against Constantine: he had already despatched his father-in-law, Maximian, with whose son, Maxentius, he was at war at the time of his pretended conversion. After this he put to death Bassianus, to whom he had married his sister Anastasia. The Cæsar Licinius, the younger, a youth of amiable manners, was involved in the ruin of Crispus; and the stern jealousy of Constantine was unmoved by the prayers and tears of his own sister pleading for her son, whose rank was his only crime, and whose death she did not long survive. The story of these unhappy princes, the nature and evidence of their guilt, the forms of their trials, and the circumstances of their death were buried in mysterious obscurity, and the courtly bishop Eusebius, who has celebrated in an elaborate work the virtues and piety of his hero, observes a prudent silence on the subject of these tragic events. Next we have to mention Fausta, the wife of Constantine, and daughter of Maximian, who was put to death in a short time after the two princes. It is asserted by Zosimus that he sent and had her suffocated in a bath, which for that purpose had been heated to an extraordinary degree; although it may appear that the remembrance of a conjugal union of twenty years, and the honor of their common offspring, the destined heirs to the throne, might have availed to soften the obdurate heart of Constantine, and persuaded him to suffer his wife, however culpable she might appear to him, to expiate her offences in a solitary prison. The deaths of her son and nephew, with the execution of a great many respectable, and perhaps innocent friends who were involved in their fall, may have been sufficient to justify the discontent of the Roman people, and to explain the satirical verses affixed to the palace gate, comparing the splendid and bloody reign of Nero and of Constantine. Under such circum-

stances it might argue some degree of candor in Constantine to decline being numbered among the faithful till he was past committing such monstrous crimes; but to assure him that his blood-guiltiness could in the end be washed away with a little water, was one of the most impious delusions of the anti-Christian priesthood which he established. This, however, will become more apparent as we proceed. The Emperor, although he usurped the sceptre by treason, forthwith assumed to himself the character of vicegerent of the Deity. To the Deity alone he was accountable for the use or abuse of his power; and his subjects were indissolubly bound by their oath of fidelity to a tyrant who had violated or might violate every law of nature or of society.

The gratitude of the Christian Church exalted the virtues and excused the failings of a patron who acted generously toward it, seated Christianity on the throne, and established it in the temples of the Roman world. The mysteries of the Christian faith and worship were concealed from the eyes of the laity with an affected secresy; but the severe rules of discipline which the bishops had instituted were relaxed by their prudence in favor of an imperial proselyte, whom it was so important to allure by every gentle condescension into the pale of the Church: and Constantine was permitted, at least by their tacit consent, to enjoy most of the privileges before he had contracted any of the obligations of a Christian. Instead of retiring from the congregation when the voice of the priest dismissed the vulgar multitude, he prayed with the faithful, disputed with the bishops, expatiated on the most sublime, the most subtile and intricate subjects of theology, celebrated with sacred rites the vigil of Easter, and publicly declared himself not only a partaker, but in an important sense an hierophant of the Christian mysteries. In his last visit to Rome the Emperor disclaimed and insulted the superstition of his ancestors by refusing to lead the military procession of the equestrian order, and to offer the public vows to Jupiter of the capitol.

Many years before his baptism and death he had declared to the world that neither his person nor his image should ever more be seen within the walls of an idolatrous temple; while he had distributed through the provinces a variety of medals and pictures which represented the Emperor in an humble and suppliant posture of Christian devotion. The Greek Church, which celebrates the festival of this imperial saint, seldom mentions the name of Constantine without adding the title of *Equal to the Apostles.*

The irresistable power of the Roman Emperors was from this time displayed in the important and dangerous change of the national

religions. The terrors of a military force silenced the faint and unsupported murmurs of the Polytheists. The exact balance of the two religions did not long continue, and the piercing eye of ambition and avarice soon discovered that the profession of Christianity might contribute to the interests of the present as well as of a future life. The hopes of wealth and honors, the example of an Emperor, his exhortations, his irresistible smiles or his terrible grimaces, diffused conviction among the venal and obsequious crowd which usually fill the departments of a palace. The cities which signalized a zeal for Christianity by a voluntary destruction of their temples were distinguished by municipal privileges and rewarded with popular donations; and Constantinople, the new capital of the East, gloried in the singular advantage, that it was never profaned with the worship of idols. As the lower classes of society are governed mainly by imitation, the conversion of those who possessed any eminence of birth or power, or of wealth, was soon followed by dependent multitudes. The salvation of the common people was easily effected, if it be true that in one year twelve thousand men were baptized at Rome, besides a proportionate number of women and children; and that a white garment, with twenty pieces of gold, had been promised by the Emperor to every convert.

It had been established before by a fundamental principle of the Roman constitution that every order of citizens, the sacred as the civil, was alike subject to the laws; and that the care of religion was the right and duty of the civil magistrate. Constantine did not persuade himself that by his conversion he had forfeited any part of the imperial prerogatives, or that he was incompetent to give laws to a religion which he had protected and embraced. The Roman Emperors still continued to exercise a supreme jurisdiction over the ecclesiastical order, and the sixteenth book of the Theodosian code represents, under a variety of titles, the authority which they assumed and exercised as the supreme heads of the Catholic Church.

After the defeat of Licinius, his last rival, the victorious Emperor proceeded to lay the foundations of a city upon the shores of the Thracian Bosphorus, destined to reign in future time the mistress of the East, and to survive the Empire and religion of Constantine. As he urged, himself, the progress of the work with the greatest zeal and energy, the walls, the porticos, and the principal edifices of this magnificent city were completed in the space of about ten years; upon which the founder celebrated with games and festivals the foundation of the new seat of Empire. As often as, during the reign of his successors, the birthday of the city returned, the statue of Constantine, of gilt wood, framed by his order, and bearing in its

right hand a small image of the genius of the place, was erected on a triumphal car. The guards, carrying lighted tapers, and clothed in their richest apparel, accompanied the solemn procession as it moved through the hippodrome. When it came opposite to the throne of the reigning Emperor he rose from his seat, and with grateful reverence adored the memory of his predecessor. At the festival of the dedication an edict, engraved on a column of marble, bestowed the title of Second or New Rome upon the new city. But the name of Constantinople has prevailed over that honorable epithet, and after the revolution of over fifteen centuries still perpetuates the fame of its author. Rome had some time before begun to be neglected by the Emperors: Diocletian, who may be called the immediate predecessor of Constantine, as sole Emperor, having taken up his residence for some time at Sirmium, and then at Nicomedia.

The foundation of a new capital was connected with the establishment not only of a new form of religion, but with that of a new form of civil and military administration. The manly pride of the ancient Romans, content with substantial power, had left to the vanity of the eastern nations the forms and ceremonies of ostentatious greatness. But when they lost even the semblance of those virtues which were derived from their republican freedom, the simplicity of their manners was insensibly corrupted by the stately affectation of the courts of Asia. The distinct view of the complicated system of policy introduced by Diocletian, improved by Constantine, and completed by his immediate successors within a period of one hundred and thirty years, not only amuses the fancy with the singular picture of a great Empire, but tends to illustrate the secret and internal causes of its rapid decay.* The distinction of personal merit and influence so conspicuous in a republic, so feeble and obscure under a monarchy, were abolished by the despotism of the Emperors, who substituted in their stead a severe subordination of rank and office, from the titled slave who was seated on the steps of the throne, to the meanest instruments of arbitrary power. This multitude of abject dependents was interested in the support of the actual government from the dread of a revolution which might at once confound their hopes and intercept the reward of their services. In this divine hierarchy, (for such it is frequently styled), every rank was marked with the most scrupulous exactness, and its dignity was displayed in a variety of trifling and solemn ceremonies, which it was a study to learn and a sacrilege to neglect. The purity of the Latin Language was debased by adopting in the intercourse of pride

* See Theodosian Code, and *Notitia Dignitatum Imperii.*

and flattery, a profusion of epithets which Cicero would scarcely have understood, and which Augustus would have rejected with contempt. The principal officers of the Empire were saluted, even by the Emperor himself, with the high sounding and plausible titles of Your Sincerity, Your Gravity, Your Excellency, Your Eminence, Your Sublime and Wonderful Magnitude, Your Illustrious and Magnificent Highness. The codicils, or patents of their office were curiously emblazoned with such emblems as were adapted to explain its nature and high dignity; the image or portrait of the reigning Emperors; a triumphal car; the book of mandates placed on a table, covered with a rich carpet, and illuminated by four tapers; the allegorical figures of the provinces which they governed; or the appellations and standards of the troops they commanded. Some of these official ensigns were exhibited in their halls of audience; others preceded their pompous march whenever they appeared in public; and every circumstance of their demeanour, their dress, their ornaments, and their train was calculated to inspire a deep reverence for the representatives of supreme majesty. To an observer, this new imperial system of the Roman government might have presented the appearance of a splendid and magnificent theatre, in which was displayed one object more prominent and conspicuous than the rest,—the Emperor,—which inspired the beholders with awe and terror, and in which the players of every character and degree repeated the language and imitated the passions of their original model.

All the magistrates of sufficient importance to find a place in the general state of the Empire, were accurately divided into three classes. 1. The Illustrious. 2. The Respectable. 3. The Honorable. In the times of Roman simplicity the last-mentioned epithet was used vaguely only as an expression of deference, till it became at length the peculiar and appropriated title of all who were members of the senate, and consequently of all who, from that venerable body, were selected to govern the provinces. The vanity of those who from their rank or office might claim a superior distinction above the rest of the senatorial order, was afterwards indulged with the new appellation of Respectable; but the title of Illustrious was always reserved to some eminent personages who were obeyed and reverenced by the two subordinate classes. It was communicated only: 1. To the consuls and patricians; 2. To the prætorian præfects, with the præfects of Rome and Constantinople. 3. To the masters-general of cavalry and infantry; and, 4. To the seven ministers of the palace who exercised their trusty functions about the sacred person of the Emperor. Among those illustrious magistrates who were esteemed co-ordinate with each other, the seniority gave place to the union of dignities.

By the expedient of honorary codicils, the Emperors who were fond of multiplying their favors might sometimes gratify the vanity, though not the ambition, of their courtiers. In the times of the Roman republic, the consuls were the first magistrates of the state, and derived their power from the choice of the people. But from the reign of Diocletian, even these vestiges of popular liberty were abolished, and the consuls, whose office was now become merely nominal, were appointed by the will of the Emperor; and their office was finally abolished in about the year 541, by the Emperor Justinian. Such is a concise view of the hierarchy of the state of the Christian Roman Empire, as established by Constantine.

In the fourth century, the age which we are now considering, there were violent controversies among the Christian sects, especially upon the subject of the Trinity. Three different hypotheses were formed concerning the nature of the divine Trinity. 1: According to the first hypothesis, which was maintained by Arius and his followers, the Word, or *Logos*, was a dependent and spontaneous production, created from nothing by the will of the Father. The Son, by whom all things were made, had been begotten before all worlds and the longest period of time which man can conceive could be compared only as a fleeting moment to the extent of his duration; yet this duration was not infinite, and there had been a time which preceded the generation of the Logos. On this only begotten Son the Almighty Father had bestowed his ample Spirit, and impressed the effulgence of his glory. Visible image of invisible perfection, he beheld, at an immeasurable distance beneath his feet, the thrones of the brightest archangels; yet he shone only with a reflected light, and like the sons of the Roman Emperors, who were invested with the titles of Cæsar, or Augustus, he governed the universe in the obedience to the will of his Father and Monarch. 2: In the second hypothesis, which was supported by the Tritheists, the word, or *Logos*, possessed all the inherent, incommunicable perfections of the supreme God. Three distinct and infinite minds or substances, three co-equal and co-eternal beings composed the Divine essence; and it would have implied contradiction that any of them should not have existed, or that they should ever cease to exist. The advocates of this system which seemed to establish three independent Deities, attempted to preserve the unity of the First Cause, so conspicuous in the design and order of the world by the perpetual concord of their administration and the essential agreement of their will. They discovered a faint resemblance of this unity of action in the societies of men, and even of the inferior animals. The causes which disturb their harmony proceed only from the imperfection and inequality of their

faculties; but the omnipotence which is guided by infinite wisdom and goodness cannot fail of choosing the same means for the accomplishment of the same ends. 3: The third hypothesis, which was maintained by the followers of Sabellius, maintained that three beings, who by the self-derived necessity of their existence, possess all the divine attributes in the most perfect degree; who are eternal in duration, infinite in space and intimately present to each other, and to the whole universe, irresistibly force themselves upon the mind, as one and the same being, who, in the economy of grace, as well as in that of nature, may manifest himself under different forms, and be considered under different aspects. By this hypothesis, a real substantial Trinity is refined into a Trinity of names and abstract modifications, which subsist only in the mind which conceives them. The *Logos* is no longer a person, but an attribute; and it is only in a figurative sense that the epithet of Son can be applied to the eternal reason or speech, which was with God from the beginning, and by which, not by whom, all things were made. The incarnation of the Logos they reduced to a mere inspiration of the divine wisdom, which filled the soul and directed all the actions of the man Christ Jesus. Thus, after revolving round the theological circle, we find that the Sabellian ends where the Nazarene and the Ebionite had begun.

In the Council of Nice, held in the year 325, A. D., at which Council Constantine was present, the Tritheists, or Trinitarians, gained the day. The consubstantiality of the Father and the Son was established by this Council, and has been unanimously received as the fundamental article of the Christian faith by the Greek, the Latin, the Oriental, and the Reformed Churches. The triumphant party here and henceforward are styled the Orthodox, in contradistinction to heretics, or Unitarians.

The orthodox Nicene Fathers, in decreeing the Son to be of the same substance with the Father, considered the word *substance* as synonymous with the word *nature;* and they illustrated their meaning by affirming that three men, as they belong to the same common species, are consubstantial, (Greek, homoousion) to each other. This pure and distinct equality was tempered on the one hand by the internal connection and spirtual penetration which indissolubly unites the divine persons; and, on the other, by the pre-eminence of the Father, which was acknowledged, so far as it was compatible with the independence of the son. The Orthodox, after their victory in the Council of Nice, have always treated with greater severity the heretics who degraded, than those who annihilated, the person of the Son. In the Council of Constantinople, convened under the aus-

pices of the Emperor Theodosius, in the year 381, A. D., or about fifty years after the death of Constantine, it was decreed that the Holy Spirit was consubstantial and equal with the Father and the Son. And thus, and at this time, was the system of the Trinity completed, and the doctrine of it established by law throughout the Roman Empire. And Theodosius was the first Roman Emperor who was baptized in the faith of the Trinity.

On the death of Constantine, which happened at Nicomedia, whither he had gone to enjoy the benefit of the fresh air, in the year 337, A. D., his body was transported back to the City of Constantinople, and there adorned with the vain symbols of royalty, the purple and diadem, was deposited on a golden bed in one of the apartments of the palace which, for that purpose, had been splendidly furnished and illuminated, and there kept to await the arrival of some of the sons of Constantine, who all happened to be absent from the city, in different parts of the Empire, in the command of armies, at that time. The forms of the court were strictly maintained. Every day, at the appointed hours, the principal officers of the state, the army and the palace, approaching the person of their deceased sovereign with bended knees and a composed countenance, offered their respectful homage as seriously as if he had been alive before them. This theatrical representation was for some time continued; nor could flatterers neglect the opportunity of remarking that Constantine alone, by the peculiar indulgence of heaven, had reigned after his death. But the same ministers and generals who bowed in such reverential awe before the inanimate corpse of their deceased Emperor, were engaged in a secret conspiracy to exclude his two nephews, Dalmatius and Hannibalianus, from the share which he had assigned them in the succession of the Empire. Their fate, as well as the funeral of Constantine, was deferred till the arrival of Constantius, the second of the sons of Constantine, who, from his comparative nearness to the imperial city at the time of the decease, was the first of the sons to arrive.

As soon as he had taken possession of the palace, his first care was to remove the apprehensions of his kinsmen, by a solemn oath, which he pledged for their security. His next business was to find some specious pretence which might release his conscience from the obligation of his promise. The arts of fraud were made to subserve the designs of cruelty, and a manifest forgery was put into the hands of Constantius, in which the Emperor is made to express his opinion that he had been poisoned by his brothers; and conjures his sons to revenge his death and consult their own safety by the punishment of the guilty. In the production and delivery of this forgery it is

said, on the authority of one respectable historian, that Eusebius, bishop of Nicomedia, was the chief instrument. Whatever reason these princes alleged in defence of their life and honor, and against so incredible an accusation, they were silenced by the furious clamors of the soldiers, who declared themselves at once their enemies, their judges, and their executioners. The spirit and the forms of legal proceedings were violated in a promiscuous slaughter, which involved the two surviving brothers of Constantine, seven of his nephews, of whom Dalmatius and Hannibalianus were accounted the most illustrious, the patrician Optatus, who had married the late Emperor's sister, and the Præfect Ablavius, whose power and riches had inspired him with some hopes of obtaining the throne. We may add that Constantius himself had espoused the daughter of his uncle Julius, and that he had given his sister in marriage to his cousin Hannibalianus. Of so numerous a family of the imperial race Gallus and Julian, the sons of Julius Constantius, the brother of the late Emperor, alone remained from the hands of the assassins. This massacre was succeeded by a fresh division of the Roman world, which was ratified in a personal interview between the three brothers. Constantine, the eldest, obtained with a certain pre-eminence, the possession of the capital. Thrace and the provinces of the East were allotted for the government of Constantius; and Constans was acknowledged as the sovereign of Italy, Africa, and the West. After this partition three years had scarcely elapsed before a war broke out between Constantine and Constans, in which the former was slain, and latter succeeded to his dominions, A. D., 340. The fate of Constans, the conqueror, was delayed about ten years longer, when he was overcome and slain by an aspirant to the throne, the usurper Magnentius, A. D., 350. Constantius, the now surviving Emperor, waged war against the usurper Magnentius, and conquered him; and he died in the year 361, as he was marching against his cousin Julian. Such were Constantine and his sons, whom the orthodox Christian world celebrated as the great builders and supporters of their establishment. And the sons of Constantine, though guilty of the most horrid and barbarous crimes, are yet honored and applauded under the beautiful name of a Christian profession, following the example of their father, as Mosheim expresses it "in continuing to abrogate and efface the ancient superstitions of the Romans, and other idolatrous nations, and to accelerate the progress of the Christian religion throughout the Empire." * But observe what follows: "This flourishing progress of the Christian religion was greatly interrupted, and the

* Mosheim's Ecclesiastical Hist. Cent. I.

Church reduced to the brink of destruction, when Julian, the son of Julius Constantius, was placed at the head of affairs." * What now is the matter? Although this prince had been educated in the bosom of Christianity, "yet he apostatized from that divine religion," says Mosheim. And what, pray, was the cause of his apostatizing? The answer is: "It was partly owing to his aversion to the Constantine family, who had imbrued their hands in the blood of his father, brother, and kinsmen." It appears, therefore, it was not from the peaceful religion of the Gospel that he apostatized, but from that of bloody murderers. There is quite a difference between these two religions, that established by Constantine and his successors, and that of the Gospel of Christ. "Julian," adds Mosheim, "affected in general to appear moderate in religious matters, unwilling to trouble any on account of their faith, or to seem averse to any sect or party." And because he allowed equal liberty to all,—or, as Robinson expresses it: "The just and gentle Julian, because he headed neither party, and put off the purple unstained with the blood of heretics,—both sides agree to execrate as a diabolical apostate."

And strange as it may seem, this mild and equitable government of Julian is by some of the most eminent orthodox writers and divines included in the flood which the dragon poured out of his mouth to destroy the woman, *i. e.*, the church, and her son Constantine, the first Christian Emperor, whom they are wont to represent as this man-child. (See representation in Rev. ch. XII.) But we have examined this man-child that they have exalted, not only to God and to his throne, but above all that is called God; and we have found in Constantine and his immediate successors, and in the system, civil and religious, which they introduced, the true representation in its incipiency of the beast which the prophet saw rising up out of the sea, having seven heads and ten horns. And here is the place for us to speak with respect to the symbolic sea up out of which this symbolic beast came. 1: The countries of the Roman Empire which were the theatre of the actions of the Roman armies are situated for the most part round the Mediterranean Sea, or the Great Sea of Daniel VII, out of which the latter prophet also saw his four beasts ascending. This may help to show where this power would arise, or, in other words, the seat and locality of it. 2: Constantine erected his new capital upon the shores of the Thracian Bosphorus, and between the Grecian Archipelago and the Black Sea; so that this doubtless helps to show the principal seat and locality of this power. 3: The sea, properly speaking, out of which this power arose would symbolise an unsettled

* Julian was the cousin and successor of Constantius, the last of the sons of Constantine.

state of the Empire, wars, commotions, and intestine discords of State and Church. We have seen that the life of the first Christian Emperor was eminently one of war and commotion until he had vanquished all his opponents and made himself sole master of the Empire. We have seen what an exceedingly unsettled state of affairs the change of the whole national religion must have necessitated; which change was begun by Constantine, but was not wholly accomplished until the age of Theodosius, over fifty years after the death of the former. We have seen that Constantine gave not only a new religion but a new and magnificent capital or seat of government, and a new form of civil policy and administration to the state. Also, the time at which this power arose, in the beginning of the fourth century, leaves no doubt whatever but that we make a proper application of the prophecy; this fact will appear more clear before we have finished our explication of this chapter. The vision in Rev. Ch. XIII, 1–11, refers to the whole Roman Empire, east as well as west, and west as well as east, beginning with Constantine and with the establishing of the Christian religion, and whose proper seat of government was at Constantinople. Verse 2 of our prophecy is: "And the wild beast which I saw was like a leopard, and his feet were as the feet of a bear, and his mouth as the mouth of a lion; and the dragon gave him his power and his seat (lit., throne) and great authority." This wild beast, it is seen, comprises in itself the characteristics of the four beasts, of Daniel VII, the first of which was a lion, symbolizing the Babylonian Empire; the second like a bear, the Medo-Persian, the third like a leopard, the eastern Grecian Empire of Alexander and his successors; and the fourth, the beast with the ten horns, which overcame all the rest and stamped them under its feet, symbolising the Roman Empire, which overcame them all, and comprises here in itself all their characteristics. Also, the vision of Nebuchadnezzar's image, Dan. II., verses 31–46, is a parallel prophecy to that of the four beasts in Dan. VII., and bears the same relation to this in Rev. XIII. as the latter does. The symbol is easily understood from its characteristics; the leopard is furious and quick to spring upon his prey; the bear's feet are singularly effective for retaining that prey and tearing it to pieces; and the lion's mouth indicates boldness, arrogance, and power of speech, as well as physical force. The dragon giving him his power and his seat, and great authority, indicates that one system, or form of government, would yield to another, which would be established and exercised in its stead. Here it means that the old Pagan Roman system of government, civil and religious, would yield to the Christian system of government, civil and religious: and that the seat, literally the throne

wherever that happened to be, as at old Rome, Milan, Sirmium, Nicomedia, which were all seats of the Roman Emperors at different times before the period which we are now considering: (but here the seat of Empire is Constantinople:) should be given up with all the authority and power that appertained to it. This power was yielded up by all opposing Pagan powers to Constantine, who inaugurated a new system of government, which was completed gradually by his successors.

As we have to view this system in its twofold aspect of civil and religious, it is in place to remark here upon some of the most eminent orthodox Fathers who were present at, and succeeded the first Catholic, or universal Council, that of Nice. These men were continually commenting and improving upon the canons, decrees, and doctrines of the Nicene Council. A conspicuous member of this first Council was the deacon Athanasius, afterwards a canonized saint, who is celebrated as the composer of the creed which begins thus: "Whosoever will be saved, before all things it is necessary that he hold the Catholic faith," that is, as established in the Councils of Nice and Constantinople, the faith of the Roman Empire, of the Greek and Roman Churches; in short the Catholic faith: "which faith," it goes on to say, "except every one do keep, whole and undefiled, without doubt he shall perish everlastingly."* This creed which is yet professed, even in some Protestant Churches, we must certainly confess is an insult to reason and a dishonor to the Most High. What a strange amount of assumption and arrogance in any man or combination of men to condemn to eternal misery all who do not choose to believe in the dogmas which such saw fit to impose by the allurements of the secular arm! This faith, as the Athansian creed goes on to explain, is the doctrine of the Trinity, or rather Tritheism, which, as it explains it, is beyond the power of man to understand. Athanasius, however, was a zealous and ardent supporter of his doctrine of the Trinity: he was, in short, the acknowledged leader in his time of the Trinitarian party. Soon after the Council of Nice, he became bishop of Alexandria, from which position he was banished three several times by the power of his opponents, the Arians, and restored after an interval, each time by the power of his own party. In this age the Trinitarians and Arians, i. e., Unitarians, appear to have been pretty equally divided in numbers, (the Arians, perhaps, being considerably more numerous, but the Trinitarians having on their side the ruling power,) and to have been both imbued to an

* This creed is now generally admitted not to have been composed by him whose name it bears, but is commonly attributed to Vigilius Tapsensis, who lived at the close of the fifth century.

equal degree with the spirit of fanaticism and persecution. The Arians when in power persecuted the Trinitarians, and the latter the former in like manner: and the whole of these proceedings of bitterness and persecution simply exemplified the outworking of the principle of evil that is in man, which we have had occasion to remark upon before, and as will be seen more fully as we proceed.

Ephraim, the Syrian, acquired an immortal name by the multitude of his writings in which he combatted the sectaries. Hilary, bishop of Poictiers, is immortalized by his twelve books concerning the Trinity, which he wrote in opposition to the Arians. The following is the strain in which he speaks of the heresies of his time: "It is a thing equally deplorable and dangerous that there are as many creeds as opinions among men, as many doctrines as inclinations, and as many sources of blasphemy as there are faults among us; because we make creeds arbitrarily, and explain them as arbitrarily. The Homoousion (the consubstantiality of the Father and Son) is rejected and received and explained away by successive synods. The partial or total resemblance of the Father and the Son is a subject of dispute for these unhappy times. Every year, nay every moon, we make new creeds to describe invisible mysteries. We repent of what we have done, we defend those who repent, we anathematize those whom we defended. We condemn either the doctrine of others in ourselves, or our own in that of others; and reciprocally tearing one another to pieces we have been the cause of each other's ruin." This teaches us that human beings are radically in every age much the same: in the fourth century as well as now, and now as well as then; there are about as many different opinions on religion as there are human beings. And if we now-a-days have less wrangling and contention and bloodshed on account of religion, it is owing to religion becoming more pure, being made more comprehensible to the human mind; and to a higher state of general education and of civilization existing among the people. But let men be in the possession of ever so little knowledge, they still can cultivate the good principle and develop the godly character in themselves; and knowing ever so much they should not for a moment neglect to cultivate and develop these. Rufinus, presbyter of Aquileia, was famous for his commentaries on several passages of the Scriptures, and his bitter contest with St. Jerome. "He would," says Mosheim, * "have obtained a very honorable place among the Latin writers of this century had it not been his misfortune to have the powerful and foul-mouthed Jerome for his adversary." But the glory of these and of all other

* Mosheim's Ecclesiastical History; Century IV

ecclesiastical writers and saints of this age was eclipsed by that of St. Augustin. Mosheim says "The fame of Augustin, bishop of Hippo, in Africa, filled the whole Christian world." He gained much honor in his controversy with Pelagius, suppressing the Pelagian heresy almost in its beginning, and establishing the Catholic doctrines of the Imputation of Original Sin, Election, and Reprobation; and of salvation by mere grace without any foresight of faith, or regard to good works, which have darkened Christendom even to the present day. The African bishops, with Augustin at their head, maintained the Catholic faith even against the bishop of Rome, who esteemed Pelagius sound in the faith; and by their exhortations, letters and writings won over the Roman Pontiff to their side. Pelagius and his doctrines were condemned with the utmost severity at Rome, and also in the famous council at Ephesus, A. D., 431. "In short," says Mosheim, "the Gauls, Britons, and Africans by their councils, and the Emperors by their edicts and penal laws demolished this sect in its infancy." "While Genseric," says Robinson, "was defending the Arian faith at the head of eighty thousand men, Augustin, who had no command over the sword, was inflaming his hearers with violent passions by urging them to hate one another for their speculations." * In one of his sermons the following is worthy of notice. The discourse is about the strait gate, and this, according to Catholic faith, cannot be good works, or obedience to the Gospel law, but the wounded side of Jesus. "By this strait gate of the side of Christ," says he, "the converted thief entered, the penitent Jew, every converted Pagan: but the wicked Arian heretic turns his back upon him and goes out. He is one of those of whom St. John says; They went out from us,—O you Arian heretic!" "Several Catholic historians observe," says Robinson, "for the glory of God, for the honor of his providence, and for the benefit of the Church, that the very day on which Pelagius was born in Britain to shed darkness over the Empire, St. Monico lay in with St. Augustin in Africa, to dispel the darkness, and throw light and sunshine and mid-day splendor over the minds of mankind." "Just so," say they, "when heretics appeared in the Western world, did not God by his Spirit excite Pope Innocent to erect the most holy office of the Inquisition. From this bitter and bloody fanatic of Africa proceeded two hundred and thirty-two pamphlets. He understood the ten commandments in a spiritual sense: and Thou shalt not kill, signified, thou shalt not kill an orthodox believer. The command did not protect the life of a heretic. St. Augustin, that renowned Catholic ora-

* Robinson's Ecclesiastical Researches.

cle, had once himself been a professed Manichæan, and had he remained so he might have remained a stranger to the diabolical work of persecuting others for their religious opinions, and perhaps have been exempt from the just charge of his having insulted the reason and abused the rights of mankind. But when he returned from his errors, as Mosheim chooses to express it, and became a true orthodox Catholic, then, indeed, the whole force of his much admired genius and flowing eloquence was employed in stirring up persecution against the heretics ; and he and other such saintly men endeavored to inflame the passions of those in power, to extirpate the root of this "horrible disease," which so much troubled their Catholic peace. Through the influence of Augustin and other orthodox saints severe laws were enacted by the Emperors against the Manichæans, who are said in the fourth century to have increased far above the other denominations of heretics in numbers and influence. Their assemblies were prohibited, heavy penalties were imposed upon their teachers, they were branded with infamy, and deprived of all rights and privileges, as citizens. The society of the Donatists also suffered immense cruelties; numbers ot them were banished, and many of them persecuted with brutal barbarity until they came to enjoy peace during the short reign of the Pagan Emperor Julian, who permitted the exiles to return to their homes, and restored them and all other persecuted sects to the enjoyment of their former liberty. But no sooner did the self-styled orthodox attain the exercise of power again after the death of Julian than the scene changed ; and none among them appeared more fit to perform the cruel work of making the blood of heretics to flow than St. Augustin. "He," says Mosheim, "instigated against them, not only the Province of Africa, but also the whole Christian world and the Imperial court." The Mother of Abominations, of which we shall have occasion to speak more afterwards, could not at that age of apostacy have conceived and brought forth a more genuine offspring to help to fill up the cup of her inexpressible wickedness, than that "learned and ingenious prelate " St. Augustin, a divine oracle to her adulterous seed, but a most contemptible tool in the eyes of the virtuous.* The Donatists had expressly remonstrated against appeals to the civil power in cases of religion. "The implacable Austin," says Robinson, " had spent almost half a century in banishing, butchering and driving all dissenters into corners ; and there he stood crowing to hail the return of day." † But the Donatists recovered for a time their former liberty and tranquillity, by the protection they received

* Vide " Christ's Second Appearing." † Robinson's Ecclesiastical Researches.

from the Vandals who conquered Africa; but as the Vandal kingdom was brought to a close in 534, A. D., hence orthodoxy and persecution once more overwhelmed that ill-fated country, Africa. "Councils, canons, edicts, and all imaginable instruments of oppression came rolling in like a tide." The constitution of the Catholic Church from the period of the Nicene Council, inspired the priesthood with a growing ambition to rid the Empire of everyone that would not conform to their ideas. Heretics stood principally in their way; therefore the greatest champion in detecting and accusing heretics, however contrary to the Gospel the means he employed, stood highest on the list of Catholic heroes and canonized saints. It was easy to see that there could be no room either for truth or charity where the continued strife was who should be greatest. And the revenues which flowed from the government to those ghostly hierarchs prompted them to still higher degrees of ambition by which the common people were trampled under foot, or at best considered as necessary tools for promoting their opulence and grandeur, and supporting them in luxury and idleness. To show that this was the real genius of this imperious hierarchy the following particulars suffice: "Many of the privileges," says Mosheim, "which had formerly belonged to the presbyters and people were (after Constantine) usurped by the bishops. Their first step was an entire exclusion of the people from all part in the administration of ecclesiastical affairs." * "In episcopal order the bishop of Rome was the first in rank, and was distinguished by a sort of pre-eminence over all other prelates. Prejudices, arising from a great variety of causes, contributed to establish his superiority; but it was chiefly owing to certain circumstances of grandeur and opulence by which mortals for the most part form their ideas of pre-eminence and dignity." "The bishop of Rome surpassed all his brethren in the magnificence and splendour of the Church over which he presided; in the riches of his revenues and possessions, in the number and variety of his ministers; in his credit with the people, and in his sumptuous and splendid manner of living. These dazzling marks of human power had such a mighty influence upon the minds of the multitude, that the see of Rome became a most seducing object of sacerdotal ambition. Hence it happened that when a new Pontiff was to be elected by the suffrages of the people, the city of Rome was generally agitated with dissensions, tumults, and cabals, whose consequences were often deplorable and fatal. The intrigues and disturbances which prevailed in the city in the year 366, when, upon the death of Liberius, another Pontiff was to be chosen in his place, are some proof of what we

* Mosheim's Ecclesiastical History: Century IV.

have now advanced. Upon this occasion one party elected Damasus to that high dignity, while the opposite party chose Ursicinus, a deacon of the vacant church, to succeed Liberius. This double election gave rise to a dangerous schism, and to a sort of civil war within the city of Rome, which was carried on with the utmost barbarity and fury, and produced cruel massacres and desolations. This inhuman contest ended in the victory of Damasus." Such was the degree of lawless power to which these degenerate plants of the vine of Sodom had already attained, and which evidently proceeded in a great degree from the anti-Christian authority which they derived from the emperor, their head, and from the secular power. This appears from what follows from Mosheim : " The additions made by the Emperors and others to the wealth, honors and advantages of the clergy were followed by a proportionable augmentation of vices and luxury, particularly among those of that sacred order who lived in great and opulent cities ; and that many such additions were made to that order after the time of Constantine is a matter that admits of no dispute." Hence there was a principal cause of their ambition, a sordid thirst for temporal glory ; and hence the historian observes ; " The bishops on the one hand contended with each other in the most scandalous manner concerning the extent of their respective jurisdictions; while on the other hand they trampled upon the rights of the people, violated the privileges of the inferior ministers, and imitated in their conduct and in their manner of living, the arrogance, voluptuousness, and luxury of magistrates and princes. This pernicious example was soon followed by the several ecclesiastical orders. The bishop by degrees divested the presbyters of their ancient privileges and their primitive authority, that they might have no importunate protesters to control their ambition or oppose their proceedings ; and principally that they might engross to themselves or distribute as they thought proper the possessions and revenues of the Church. Hence it came to pass that at the end of this (fourth) century there remained no more than a mere shadow of the ancient government of the Church." Admitting that there did remain a mere shadow, there must be an essential difference between the shadow and the substance. But it appears evident there did not remain even a distinct resemblance of the primitive Christian Church, if we compare the arrogance, voluptuousness, luxury, and cruelty of the clergy, and the barbarity, fury and inhuman contests and cabals of their subjects with what the Gospel represents Jesus to have taught his disciples ; " But Jesus called them and saith unto them : Ye know that they who are accounted to rule over the Gentiles exercise lordship over them ; and their great ones exercise authority upon

them. But so shall it not be among you; but whosoever shall be great among you shall be your servant, and whosoever will be chiefest shall be servant of all," Mark X. 42–45. How diametrically opposite appear the whole proceedings of this Catholic hierarchy, even in the fourth century: The bishop lording it over the presbyters; the presbyters over inferior officers, and the lower class of hierarchy setting themselves up as great ones over the common people; and priests and people; and the civil power tyrannizing with relentless cruelty over reputed heretics, whose lives of virtue, and perhaps of ignorance, exposed them alone as common prey to this ravenous and beastly legal power of State and Church. This is the Church which had been denominated the blessed Mother of saints and of great saints, and even of Saint Constantine the Great, under whose reign President Edwards could affirm that that great building which had been erecting since the fall rose to so great a height! This is that great hierarchy, and these the effect of that Catholic Gospel for which he could affirm that no other cause could be devised but the power of God.* Doubtless that proverb is true: There is a way that seemeth right unto a man, but the end thereof are the ways of death.

The destruction of Paganism in the days of Theodosius (378–395 A. D.) is the most notable example which history affords of the extirpation of any ancient and popular superstition. The Christians, more especially the clergy, had supported with impatience the prudent delays of Constantine, and the impartial toleration of the elder Valentinian, "nor could they deem their conquest perfect or secure so long as their adversaries were suffered to exist." The influence which Ambrose, bishop of Milan, and his brethren had acquired over the youthful Emperor Gratian, and his successor, Theodosius the Younger, was employed to infuse the principles of persecution into the minds of their imperial proselytes. Two specious principles of religious jurisprudence were established by the orthodox, from whence they deduced a direct and rigorous conclusion against the subjects of the Empire who still adhered to their ancient religion, namely, that the magistrate is in some measure guilty of the crimes which he neglects to prohibit or to punish; and that the idolatrous worship of fabulous deities and real demons is the most abominable crime against the Creator. The laws of Moses and the examples of Jewish history were commonly quoted and applied by the clergy to the reign of Christianity. They excited the zeal of the Emperors to vindicate their own honor and that of the Deity; and the Pagan temples

* History of Redemption.

throughout the Empire were subverted about sixty years after the conversion of Constantine. In a full meeting of the senate at Rome the Emperor Theodosius, then visiting that city, proposed, according to the ancient forms of the Republic: Whether the worship of Jupiter or that of Christ should be the religion of the Romans? The liberty of suffrages which, through respect for the senate, he affected to allow, was destroyed by the hopes and fears which the presence of this conqueror inspired; and his arbitrary exile of Symmachus, the ablest and most popular statesman of those times, was a sufficient admonition that it might be dangerous to oppose his wishes. On a division of the Senate Jupiter was degraded by a very large majority; and historians regard it as a matter of surprise that there should be any members courageous enough to declare by their speeches and votes that they were still attached to an abdicated deity. The hasty conversion of the senate must, however, be attributed to fear or to sordid motives; for many of their number betrayed afterwards on every favorable occasion their secret disposition to throw aside the odious mask of dissimulation. But they gradually became fixed in the new religion, as the cause of the ancient became hopeless. They yielded to the will of the Emperor, to the fashion of the times, and to the entreaties of their wives and children, who were instigated and influenced by the rest of the nobility. The Bassi, the Paullini, the Gracchi adopted the Christian religion; and the luminaries of the world, the venerable assembly of Catos (such are the high-flown expressions of Prudentius) were impatient to strip themselves of their pontifical garments; to cast the skin of the old serpent, to assume the snowy robes of baptismal innocence, and to humble the pride of the consular fasces before the tombs of the martyrs. The industrious citizens and the populace who were supported by the public liberality filled the churches of the Lateran and the Vatican with an increasing throng of devout proselytes. The decrees of the senate which proscribed the worship of idols were ratified by the general consent of the people of Rome; the splendor of the capitol was defaced, and the temples, 424 of which still remained in the city of Rome, and the statues of the gods in every quarter of the city, were abandoned to ruin and contempt. Thus Rome submitted to the new religion; and the dependent provinces had not yet lost their respect for the name and authority of Rome. The Pagan religion was abolished in the provinces as early as the year 420 A. D. The ruin of this ancient superstition is described by the Sophists of that and the succeeding age as a dreadful and amazing calamity which covered the earth with darkness and restored the ancient dominion of chaos and of night.

They relate in solemn and pathetic strains that the temples were converted into sepulchres, and that the holy places which had been adorned with the statues of the gods were basely polluted by the relics of the christian martyrs. "The monks, a race of filthy animals, to whom Eunapius is inclined to refuse the name of men, are the authors of the new worship which, in the place of those deities that are conceived by the understanding, has substituted the meanest and most contemptible slaves. The hands of those infamous malefactors who for the multitude of their crimes have suffered a just and ignominious death, their bodies still marked by the impression of the lash and the scars of those tortures which were inflicted by the sentence of the magistrates; such (continues Eunapius) are the gods which the earth produces in our days; such are the martyrs, the supreme arbitrators of our prayers and petitions to the Deity, whose tombs are now consecrated as the objects of the veneration of the people." We may conceive of the surprise of the sophist, who was a spectator of this revolution which raised those obscure victims of the laws to the rank of celestial deities. The respect which the Christians had had for the martyrs of their faith was exalted by time and victory into religious adoration; and they associated the most illustrious of the Scripture Saints and Prophets to the honors of the martyrs. In the age which followed the conversion of Constantine, the Emperors, the Consuls, and the Generals of armies were accustomed devoutly to visit the tombs of St. Peter and St. Paul upon the Ostian road, and afterwards in the Vatican, where, as was supposed, the bones of these spiritual heroes were deposited. The new capital of the Roman world, unable to produce any ancient and domestic trophies, was enriched by the spoils of dependant provinces. The bodies of St. Luke, St. Andrew, and St. Timothy were torn from their obscure graves, where, if they had ever been buried, they had reposed for near three centuries, and transported in solemn pomp to the Church of the Apostles, which Constantine had founded in his new city. About fifty years after the same city was honored by the presence of Samuel, the judge and prophet of Israel. His ashes, deposited in a golden vase and covered with a silken veil, were delivered by the bishops into each other's hands. The relics of Samuel were received by the people with the same joy and veneration which they would have shown the living prophet. The highways from Palestine to the gates of Constantinople were thronged with a procession, and the Emperor Arcadius, the son and successor of Theodosius, at the head of the most illustrious members of the senate and Church advanced to meet his extraordinary guest, who had always claimed the homage of kings. The example of Rome and Constantinople

confirmed the faith and discipline of the Catholic world. The honors of the saints and martyrs, after a feeble and ineffectual murmur of profane reason, were universally established, and in the days of St. Ambrose and St. Jerome something was still deemed wanting to the sanctity of a Christian Church till it had been consecrated by some portion of holy relics which attracted and influenced the devotion of the faithful.

In the long period of twelve centuries which passed between the age of Constantine and that of Luther, the worship of saints and relics corrupted the pure and perfect simplicity of the Christian model, and the symptoms of degeneracy are discernible in the first generation which adopted and cherished this pernicious and abominable innovation. The satisfactory experience that the relics of the saints and martyrs were more valuable than gold or precious stones stimulated the clergy to multiply the treasures of the Church. With little regard for truth or probability they invented names for skeletons, and actions for names; and the fame of men of Apostolic times was darkened by religious fictions.

To the genuine and primitive band of martyrs they added myriads of imaginary heroes, that had never existed except in the imagination of crafty and credulous legendaries; and there is every reason to suspect that Tours might not be the only diocese in which the bones of a malefactor were adored instead of those of a saint. This superstitious practice, which tended to increase the temptations to fraud and credulity, insensibly extinguished the light of history and of reason in the Christian world. But the progress of superstition and idolatry would have been much less rapid and victorious had not the faith of the people been assisted by the seasonable aid of visions and miracles, to ascertain the authenticity and virtue of the most suspicious relics.

In the reign of the younger Theodosius, Lucien, a presbyter of Jerusalem and the ecclesiastical minister of the village of Caphargamala, about twenty miles from the city, related a very singular dream, which, to remove his doubts, had been repeated to him on three successive Saturdays. A venerable figure stood before him in the silence of the night with a long beard, a white robe, and a gold rod, and announced himself by the name of Gamaliel, and revealed to the astonished presbyter, that his own corpse, with the bodies of his son Abbas, his friend Nicodemus, and Stephen the first martyr of the Christian faith, were secretly buried in the adjacent field. He added with some impatience that it was time to release himself and his companions from their obscure prison; that their appearance would be salutory to a distressed world; and that they had made

choice of Lucian to inform the bishop of Jerusalem of their situation and their wishes. The doubts and difficulties which still retarded the important discovery were successively removed by new visions, and the ground was opened by the bishop in the presence of an assembled multitude. The coffins of Gamaliel, of his son, and of his friend were found in regular order; but when the fourth coffin, which contained the remains of Stephen, was shewn to the light, the earth trembled, and an odor such as that of Paradise was smelt, which instantly cured the various diseases of seventy-three of the bystanders. The companions of Stephen were left in their peaceful residence at Caphargamala, but the relics of the first martyr were transported to a church consecrated to their honor on Mount Zion; and the minute particles of these relics were acknowledged in almost every province of the Roman Empire to possess a divine and miraculous virtue. St. Augustine attested the numerous prodigies which were wrought in Africa by the relics of St. Stephen. The bishop of Hippo solemnly declares that he has selected those miracles only which were publicly certified by the persons who were either the objects or the spectators of the power of the martyr. Many prodigies were omitted or forgotten, and Hippo had been less favorably treated than the other cities of the province. And yet he enumerates seventy miracles, of which three were resurrections from the dead, in the space of two years, and within the limits of his own diocese. But, it is strange this great saint does not say he was the object or spectator of any of these miracles himself. Besides, notice that ominous number *seventy*, as well as *three*, in his enumeration. If we enlarge our view to all the dioceses and all the saints of the Christian world of that age, it will not be easy for us to calculate the fables and the deceptions that issued from this inexhaustible source. The innumerable miracles of which the tombs of the martyrs were the perpetual theatre revealed to the credulous believers the state and constitution of the visible world, and the religious speculations appeared to be founded on the firm basis of experience. Whatever might have been the condition of the souls of the vulgar in the long interval between the dissolution and resurrection of their bodies, it was evident that the superior souls of the martyrs and saints did not consume that portion of their existence in silent and inglorious sleep. The enlargement of their intellectual faculties must have surpassed the measure of the human imagination, since it was proved by experience that they were capable of hearing and understanding the various petitions of their almost innumerable votaries, who at the same moment of time, and in the most distant parts of the world, invoked their names and their assistance. The confidence of the petitioners appears to

have been founded on the persuasion that the saints that reigned with Christ, cast an eye of pity upon the earth; that they were warmly interested in the welfare of the Catholic Church, and that the individuals who imitated their pious and faithful examples, were the peculiar and favorite objects of their tender regard. Sometimes indeed their friendship might be influenced by considerations of a less exalted kind; they viewed with partial affection the places which had been consecrated by their birth, their residence, their death, their burial, or the possession of their relics. The meaner passions of pride, avarice and revenge might be deemed unworthy of a celestial breast, yet the celestial saints themselves condescended to testify their grateful approbation of the liberality of their votaries: and the sharpest bolts of punishment were hurled against those impious wretches who violated their magnificent shrines, or discredited their supernatural power. Atrocious indeed would have been the guilt, and strange the scepticism of those men, if they had obstinately resisted the proof of a divine agency, while the elements, the whole range of animal creation, and even the secret and subtile operations of the human mind, were compelled to obey.

At Minorca, it was said, the relics of St. Stephen converted in eight days 545 Jews, with the help, indeed, of some seasonable severities, such as burning their synagogue, driving the obstinate infidels to stand amongst the rocks, &c. The immediate and almost instantaneous effects which were supposed to follow the prayer, or the offence, satisfied the Christians of the ample measure of favor and authority which the saints enjoyed in the presence of the Supreme Deity; and it seemed almost superfluous to enquire whether they were continually obliged to intercede before the throne of grace; or whether they were not permitted to exercise, according to the dictates of their justice and benevolence, the delegated power of their subordiate deityship. The imagination, which was raised only by a painful effort to the contemplation and worship of the Infinite Deity, eagerly embraced such inferior objects of adoration as were more proportioned to its gross preception and imperfect faculties.

The sublime and simple doctrine of the primitive Christians was gradually corrupted, and the hierarchy of heaven, already clouded with metaphysical subtilties, which put out of the question the consideration of the supreme and only God, was degraded by the introduction of a popular mythology which effectually restored the reign of Polytheism. As the objects of religion were gradually reduced to the standard of the imagination, those rites and ceremonies were introduced which seemed to most powerfully affect the senses of the vulgar. If in the beginning of the fifth century Origen or Cy-

prian had been raised from the dead to assist at the festival of some popular saint or martyr they would have gazed with astonishment and indignation on the profane spectacle. which had succeeded to the pure and spiritual worship of a primitive Christian congregation. As soon as the doors of the church were thrown open they must have been offended with the smoke of incense, the various perfumes of flowers, and the glimmer of lamps and tapers, which diffused at noonday a gaudy, superfluous, and, in their opinion, a sacrilegious light. If they should approach the balustrade of the altar they must make their way through a prostrate crowd, consisting for the most part of strangers or pilgrims, who resorted to the city on the vigil of the feast; and who already felt the strong intoxication of fanaticism, perhaps some of wine. They devoutly imprinted their kisses on the pavements and walls of the sacred edifices, and they directed their frequent prayers to the bones, the blood, or the ashes of the saint, which were usually concealed by a linen or silken veil from the eyes of the votaries.

The Christians frequented the tombs of the martyrs in the hope of obtaining from their effectual intercession every sort of spiritual, but more especially of temporal blessings. They implored the preservation of their health or the cure of their infirmities, the fruitfulness of their barren wives, or the safety and happiness of their children. Whenever they were about to undertake any distant or dangerous journey they implored the holy martyrs to be their guides and protectors on the road; and if they returned without having experienced any misfortune they again hastened to the tombs of the martyrs to express with grateful thanksgivings their obligations to their celestial patrons.

The walls of the temples were hung around with symbols of the favors which they had received; eyes, and hands and feet of gold and silver, and edifying pictures, which could not long escape the abuse of indiscreet and idolatrous devotion represented the image, the attributes, and the miracles of the tutelar saint. The same uniform spirit of superstition and idolatry might suggest in the most distant ages and countries the same methods of affecting the sense, and of deceiving the credulity of mankind; but it is clearly seen, and must be confessed, that the priesthood of the Catholic Church imitated the model of the superstition which they were impatient to destroy; and some may incline to believe that they substituted a worse system of superstition instead of Pagan Polytheism. In their destruction of Paganism the bishops persuaded themselves that the ignorant rustics would more readily renounce the superstitions of Paganism if they found some resemblance, some compensation in the

bosom of Christianity. The religion of Constantine achieved in less than a century the final conquest of the Roman Empire; but the victors themselves insensibly adopted the arts and practices of their vanquished rivals. Here we find, even in this transition state from Paganism to Christianity, how easily men glide into idolatry; how insensibly they are overcome by those arts and practices which they condemn in others; how that, engrossed with carnal ideas, the Christian priesthood allowed the worship of saints, relics, and images to corrupt the pure and simple primitive Christian model. The bishops of that day persuaded themselves that the Pagans would more willingly renounce Polytheism and embrace Christianity, if they found in it something compensatory for the old religious rites and ceremonies to which they had been accustomed, just as if one form of idolatry were any better than another; and the Reformers of eleven centuries after, possessed with the same idea, made the same mistake in retaining many of the man-made doctrines of the old Catholic Church.

But to proceed with the prophecy in ch. XIII., verse 3, is: "And I saw one of his heads, as it were, wounded (lit. slain) to death; and his deadly wound was healed; and all the world wondered after (lit. behind) the beast." The seer in his vision saw this wounded head as a very remarkable appearance. It here refers to the city of Rome, wounded and trodden down by war, and the adjacent country of Italy which was subjected to the same ravages of war as the city; and this head represented in resources and importance one-seventh of the Roman Empire. Rome was on several occasions during the decline of the Empire taken and sacked by the barbarians; as by Alaric, king of the Goths, in the year 410 A. D.; by Genseric, king of the Vandals, in 455 A. D.; by Anthemius and Ricimer in 472 A. D., and by Odoacer, a Gothic king who governed Rome and Italy from the year 476–490 A. D.; and by the Goths and Romans it was repeatedly taken and retaken till the year 552 A. D. But the deadly wound was healed in a degree by the re-conquest of Rome by Narses, the General of the Emperor Justinian, after which, for a period of about two centuries, Rome, with the adjacent provinces, was governed by an officer called Exarch, who resided at Ravenna and governed as the lieutenant of the Emperor, at Constantinople. These Exarchs, of whom there were eighteen successive ones, were invested with civil, military, and even ecclesiastical power. Their immediate jurisdiction, which was afterwards given to the Pope, extended over the modern Romagna, or the States of the Church, the marshes or valleys of Ferrara and Commachio, five maritime cities from Rimini to Ancona, and a second

inland Pentapolis, between the Adriatic coast and the Appennines. Also three subordinate provinces of Rome, Venice, and Naples, which were separated by hostile lands from the palace of Ravenna, acknowledged, both in peace and war, the supremacy of the Exarch. But this deadly wound came to be completely healed by the conquests of Rome and Italy, 754–800, by Pepin and Charlemagne, kings of France, who donated to the bishop of Rome the patrimony over which he has ruled, as a temporal as well as an ecclesiastical prince, till within our own time. Thus that part of his dominions seemed to have been taken clearly away from the Roman Emperor who resided at Constantinople, and to have become the independent kingdom of the Pope, supported by the kings of France, and afterwards by the Emperors of Germany. But although this was so in effect yet the Emperors who reigned at Constantinople never gave up their claim to those dominions which were formerly governed by the Exarch, now by the Pope, but always reckoned them as their lawful right. "And all the world wondered after the beast." The word ὀπίσω, here translated "after," literally signifies "behind" or "backwards," so that it reads "all the world wondered behind the beast," and it means that the attention of mankind would be attracted in another direction, and towards some other wonderful object than the proper seat of government, and the proper supreme head of the Empire. The Popes of Rome waxed very great in the four centuries which intervened since the reign of Constantine, through the influence which their peculiar position and circumstances gave to them; and they were now waxed doubly great and strong, through the liberality and assistance of the Western potentates. The Emperor thus effectually lost not only part of his jurisdiction, but a good share of the homage and admiration which accrued to him from mankind; and while the power and influence of the Pope henceforth constantly increased, that of the Emperor as constantly decreased, until at length the Latin Crusaders took Constantinople itself, and Latins ruled it for somewhat over fifty years, 1204–1261, when it was again taken by the Emperors of the Eastern Roman line, who reigned over it till it was finally captured by the Turks in 1453.

Verse 4. "And they worshipped the dragon which gave power to the beast, and they worshipped the beast, saying: Who is like to the beast? Who is able to make war with him?" The prophet in his vision takes in ages at a glance. The Spirit of God sees the past, present, and future as present. Here they are seen worshipping the dragon, or the government and religion of the old Pagan Roman Empire, and the beast, or the government and religion of the Chris-

tian Roman Empire; but the dragonic power is evidently passed away; for their acclamations are all in praise of the beastly power. But in a sense these two powers were adored together. The Pagan Roman Emperors received from their subjects divine homage. On state occasions the Emperor sat on his throne, surrounded by the busts and images of the Emperors that had preceded him; and the principal subjects of the Empire were accustomed to present themselves before him in the attitude of worship, and so adore not only the living Emperor, but the busts and statues of all the dead ones which were then on exhibition. The same worship was given to the Christian Roman Emperors, and the mode and manner of this worship was brought to a more blasphemous refinement than ever before by the Pagan Diocletian, the immediate predecessor of Constantine, who introduced the court ceremonial of Eastern kings into the court of the Emperors; and so it continued, but still waxing worse, during the reign of the Christian Emperors. Of course the vulgar multitude could only worship the Emperor at a distance, with their reverential exclamations: "Who is like unto him! Who is able to make war with him!" When the crusaders were passing Constantinople on their first expedition the generals and officers were detained and compelled to do homage to the Emperor Alexius, he thereby showing them that he still considered the Western provincials as his liege subjects. High on his throne the Emperor sat mute and immoveable: His Majesty was adored by the Latin princes, dukes, and counts; and they submitted to kiss either his feet or his knees, an indignity which their own writers are ashamed to confess, and unable to deny. In about a century after, however, when the crusaders were passing on their fourth expedition they took the city and held it for a time, the Emperors going into exile, as we have mentioned. It has always been considered a privilege by the Catholics to be allowed the rare honor of kissing the Pope's toe. "Who is like unto the beast? Who is able to make war with him?" This last expression shows that the secular power of the Romans, or the Emperors who comprised in their person both the sacred and secular branches of power, is principally meant. This great combination of sacred and secular power,—the sacred, which, as the vicegerency of God on earth, claimed all spiritual power over the souls and bodies of men; the secular power of the Romans, which claimed to have won universal Empire by the force of its arms,—might well be an object of astonishment to the vulgar multitude, and cause the watching nations to cry: "Who is able to make war with it?" Verse 5; "And there was given unto him a mouth speaking great things and blasphemies: and power was given unto him to continue (lit., to do

or make, (ποιῆσαι) forty-two months." It is not said by whom this mouth was given, as it was said that the dragon gave him his power, his throne and great authority. It symbolizes principally the ecclesiastical or spiritual force of the Empire, that is, of the Catholic Church. The mouth here given evidently means the same with that mentioned in Daniel, ch. VII. ver. 8, where it is said that in the little horn were eyes like the eyes of man (not only of a man) and a mouth speaking great things. The mouth, as the eyes, pertains not to an individual man alone, but to the whole power which it symbolizes. Thus, though the spiritual power was represented especially in the Emperor as the supreme head of the Catholic Church; and though it was recognized in the Pope more than in any other individual bishop of that church, yet the symbol does not refer to these two, or to either one of them exclusively, but to the whole Catholic hierarchy. The reference in Dan. XI. 36, &c., appears to have in view the whole Roman power in its various characters.

"Speaking great things and blasphemies." Doubtless these "great things" mean the same as, and much more than that expression in the New Testament "great swelling words of vanity," which are spoken by men puffed up with pride, actuated by arrogance and ambition, and filled with carnal ideas, following the lust of the flesh and of their own perverse hearts, strangers to God and to all godliness, and therefore enemies of themselves and of their species. Blasphemy means, generally, impiety against God. This takes place in various ways, as for example, by detracting from the Deity the honors which belong to him: the setting up and worship of other gods or idols besides the true and only God, the invisible and infinite Deity; the assuming and arrogating of men to themselves the honors and prerogatives which belong only to Deity. When men give to idols, or false gods, or deified human beings any divine honors, they detract from the true God what properly belongs to him, just as they do when they neglect to perform the important duties which they owe to him. When men allow or require themselves to be worshipped by their fellow human beings, as did the Christian Roman Emperors, the Popes, and as do modern Christian princes, they assume and arrogate to themselves the honors which belong only to God. It may be truly said that the Christian Emperors did exalt themselves above all that is called God. And the Popes either permitted or compelled themselves to be exalted to such a high pitch of divinity as they have been, even higher than anything that is known to have been called God. The truly godly man is the most truly humble. Men commit blasphemy when they permit or require themselves to be called by any of the titles which are

appropriated to the Supreme God. But the blasphemies here referred to principally are those implied in the doctrines of the Orthodox Catholic Church. The Greek and Roman churches have long been polluted by the worship of saints and martyrs, relics, and images. Both these, as also the Oriental Christian, and some of the Reformed Churches worship the Trinity, which to worship is dishonoring to God.* The Greek and Roman Churches have other gods in their celestial hierarchy, such as the Virgin Mary, the worshipping of any of which is blasphemy. "If we understand what prayer is," says Origen, a learned Christian writer of primitive times, "it will appear that it is never to be offered to any originated being, not to Christ himself, but only to the God and Father of all, to whom our Saviour himself prayed and taught us to pray." And in a book of prayers which is used in one of the Protestant Churches it goes on thus: "O God, the Father of heaven, have mercy upon us, miserable sinners; O God, the Son, Redeemer of the world, have mercy upon us, miserable sinners; O God, the Holy Spirit, proceeding from the Father and the Son, have mercy upon us, miserable sinners; O holy, blessed and glorious Trinity, three persons and one God, have mercy upon us, miserable sinners." Nobody can understand the foregoing as merely a Trinity of names, nor do we know that any one pretends to do so: there appear to be three objects prayed to, and to pray to more than one divine being, and that no conceivable object, either of the sense or of the imagination, is displeasing to God. And the Pope of Rome has lately put the capstone on the blasphemous fabric by declaring himself infallible. In the Council of Nice held in 325 A.D., the equal Deity of the Son with the Father was decreed: in that of Constantinople, held in 381, A. D., the equal Deity of the Holy Spirit with the Father and the Son was decreed; in that of Chalcedon, held in 451, it was decreed that in Christ there were two natures, perfect God and perfect man; and thus the successive Councils held from time to time have added to the number of the celestial hierarchy of the Christian Church, which deities all subsisted merely in the imagination that created or creates them.

"And power was given him to continue forty-two months." In the language of prophecy a day is usually put for a year, and thus reckoning thirty days for each month, that is, three hundred and sixty days for a prophetic year, this power was to continue for twelve hundred and sixty years. And if we reckon from the Reformation

---

* The worship of the Trinity proper is the worship of man; the worship of the Trinity of the creeds is the worship of some complex idea which nobody can understand, but which each one tries to have some sort of conception of.

begun by Constantine in the fourth century to the Protestant Reformation in the sixteenth century, reckoning from and to the mean times in which these Reformations were effected, we shall find that this period of time coincides. (See Rev. ch. XI. 2, 3, and ch. XII., 6 also, for the time.) In the continuation of our prophecy, verse 6 reads: "And he opened his mouth in blasphemy against God, to blaspheme his name, and his tabernacle, and them that dwell in heaven." This he does by means of the "mouth" that was given him, by the Catholic hierarchy, especially in the persons of the Emperors and Popes, arrogantly claiming to itself the honors which belong to God alone, by its arbitrarily assuming the right of controlling the conscience and reason of all mankind, as well as of being the arbiter of their eternal destinies, by which it extended its power as far as the fears of its ignorant and superstitious votaries; by its undue use of the instrument of excommunication, and anathematizing, cursing by "bell, book and candle-light," &c., especially in the case of the multitudes of heretics and nonconformists, which were in all the orthodox Christian ages condemned to temporal and eternal misery by the exercise of this power. This hierarchy beyond all doubt blasphemed the name of God and his tabernacle, that is, his true church, here his true and humble and persecuted ones; and them that dwell in heaven, that is, true worshippers of God, the truly godly people, wherever they were found within the jurisdiction of the Catholic hierarchy. The tabernacle was a movable temple of the Hebrews in the days of their wanderings in the wilderness; so here the tabernacle means the true Church of God on earth; and those who dwell in it, or his true and faithful people, wherever they are, and however difficult to be recognized among mankind, are said to dwell in heaven. See Hebrews VIII. 2, and IX.; Rev. XV. 5. In general throughout the book of Revelation wherever the word heaven is used it means the Church of God on earth. And thus when in verse 7 of chapter XII. of the Book of Revelation, it is said that there was war in heaven, it means, not that there was war away above the clouds in realms unknown and unexplorable by us; but that there was a spiritual contest of the Church in the world, with the world, and with all the powers and contrivances of the spiritual adversary, as in the contest of the primitive Church with polytheism which resulted in a reformation of the old system under Constantine and his successors, and to which this heavenly war refers; as well as to the war waged by the witnesses for the truth in all the ages afterwards against Catholic polytheism and idolatry. The prophecy does not say how long or how short that contest in heaven would last; the language simply informs us that such a contest would take place

and what its results should be. But we know that spiritual contest began with Christianity, and is going on ever since; Michael and his angels, the Spirit of God, fighting against the dragon, the spirit of the world, the flesh, and the devil, and prevailing over them. Paul, in his epistles, explains the kingdom of heaven to be righteousness, and peace, and joy in the Holy Spirit, (Romans ch. XIV., ver. 17,) and this belongs to one as to many, and to many as to one. Ver. 7: "And it was given unto him to make war with the saints and to overcome them; and power was given him over all kindreds and tongues and nations." This making war with the saints, and overcoming them, has reference to the great power of the Empire, which was always exercised in compelling conformity to the orthodox doctrines of the Catholic Church, which were universally established therein by law. The Emperor, the supreme head of the Church, and of course the bishop of Rome, were always considered as the pillars and supporters of rigid orthodoxy, and the reference in this verse is especially to the Catholic hierarchy using the secular power of the Empire in compelling submission to the established faith. And power was given him, literally over "every tribe, and people, and tongue." This certainly is all-inclusive language, and it has reference to the Roman Empire considered as the world, which throughout the New Testament is spoken of as such. The orthodox doctrines of the Catholic Church were established in every portion of the Empire from the Caledonian rampart to the frontiers of Persia, and from Mount Atlas in Africa to the frontiers of Scythia and Germany; so that heretics and nonconformists had no place to go if not beyond the frontiers of the Empire, from the arm of persecution and compulsion. And even Caledonia, Scythia, Germany, and other nations which lay outside of the Empire proper, were afterwards brought to a profession of the orthodox faith through the labors of the missionaries of the Catholic Church; missionaries who were often accompanied by an army of soldiers or dragoons, and enforced their tenets by the sword. A religious society sprung up in the Eastern Roman Empire in the latter part of the seventh century, called the Paulicians, which is thus described by Gibbon the historian: "The name of Paulicians is derived by their enemies from some unknown and domestic teacher; but I am confident that they gloried in their affinity to the apostle of the Gentiles."—"The Paulician teachers were distinguished only by their Scriptural names, by the modest title of fellow-pilgrims, by the austerity of their lives, their zeal or knowledge, and the credit of some extraordinary gifts of the Holy Spirit. But they were incapable of desiring, or at least of obtaining the wealth and honors of the Catholic prelacy; such anti-Christian

pride they bitterly censured; and even the rank of elders or presbyters was condemned as an institution of the Jewish Synagogue."

In their persecution by the Roman Emperors the historian says: "After a mission of twenty-seven years Sylvanus (this was the principal founder of their society) who had retired from the tolerating government of the Arabs, fell a sacrifice to the Roman persecution. The laws of the pious Emperors, which seldom touched the lives of less odious heretics, proscribed without mercy or disguise the tenets, the books and the persons of the Motanists and the Manichæans; the books were delivered to the flames; and all who should presume to secrete such writings, or to profess such opinions, were devoted to an ignominious death. A Greek minister, armed with legal and military powers, appeared at Colonia to strike the shepherd, and to reclaim, if possible, the lost sheep. By a refinement of cruelty Simeon placed the unfortunate Sylvanus before a line of his disciples, who were commanded, as the price of their pardon and the proof of their repentance, to massacre their spiritual father. They turned aside from the impious office; the stones dropped from their filial hands; and of the whole number only one executioner could be found, a new David, as he is styled by the Catholics, who boldly overthrew the giant of heresy. This apostate, Justus was the name, again deceived and betrayed the unsuspecting brethren: and a new conformity to the acts of St. Paul may be found in the conversion of Simeon; like the apostles he embraced the doctrines he had been sent to persecute, renounced his honors and fortunes, and acquired among the Paulicians the fame of a missionary and a martyr. They were not ambitious of martyrdom, but in a calamitous period of one hundred and fifty years their patience sustained whatever zeal could inflict; and power was insufficient to eradicate the obstinate vegetation of fanaticism and reason. From the blood and ashes of their first teachers a succession of teachers and congregations repeatedly arose."—"The feeble Michael the first, the rigid Leo, the Armenian, were foremost in the race of persecution; but the prize must doubtless be adjudged to the sanguinary devotion of Theodora, who restored the images to the Oriental Church. Her inquisitors explored the cities and mountains of the lesser Asia, and the flatterers of the Empress have affirmed that in a short reign one hundred thousand Paulicians were extirpated by the sword, the gibbet, or the flames."*

Great numbers of the Vandals, Suevi, Goths and Burgungians are said to have embraced Christianity of their own accord in the fifth century. But from what follows it is not difficult to see what

* Milman's Gibbon's Rome, Ch. LIV.

it was that they embraced. Mosheim says: "All these fierce and warlike nations judged a religion excellent in proportion to the success that crowned the arms of those who professed it, and esteemed consequently that doctrine the best whose professors had gained the greatest number of victories. When therefore they saw the Romans possessed of an Empire much more extensive than that of any other people, they concluded that Christ, their God, was of all others the most worthy of religious homage." * Clovis, king of the Franks, was at this period the most famous trophy of their Catholic grace. "His conversion to the Christian religion is dated from the battle he fought with the Alemans in the year 496, in which, when the Franks began to give ground, and their affairs seemed desperate, he implored the assistance of Christ, and solemnly engaged himself by a vow to worship him as his God if he rendered him victorious over his enemies." Victory ensued. Clovis was the same year baptized at Rheims with three thousand of his subjects who followed his example. It is said that Remigius, bishop of Rheims, having preached to Clovis, and those who had been baptized with him, a sermon on the sufferings and death of Jesus, the king on hearing him cried out: "If I had been there with my Franks that should not have happened." † This may serve as a specimen to show the spirit that animated these ignorant and barbarous converts, as well as their misunderstanding of Christ and his harmless religion. But this is not all; wonderful miracles are said to have been wrought at the baptism of this first Christian king of France, which lying tales, Mosheim observes, "are utterly unworthy of credit." He further adds that "*pious frauds* were very commonly practised in Gaul and Spain at this time in order to captivate the minds of a rude and barbarous people, who were scarcely susceptible of a rational conviction." "The impudence of imposters in contriving false miracles was artfully proportioned to the credulity of the vulgar; while the sagacious and the wise, who perceived these cheats, were obliged to silence, by the dangers which threatened their lives and fortunes if they detected the artifice. The prudent are silent, the multitude believe, and impostors triumph."

In the sixth century the conversion of several barbarous nations is dated; among whom were the Abasgi, the Heruli, the Alans, the Lazi, and Zani. "These conversions," says Mosheim, "however pompously they may sound, were extremely superficial. All that was required of these darkened nations amounted to an oral profession of their faith in Christ, to their abstaining from sacrifice to the gods, and their committing to memory certain forms of doctrine; so

* Mosheim's Ecclesiastical History, Century V † Id. Cent. V.

that even after their conversion to Christianity they retained their primitive ferocity and savage manners, and continued to distinguish themselves by the most horrid acts of cruelty and rapine, and the practice of all sorts of wickedness." * It would appear that where such a religion as this is called Christianity, and such savage and cruel and rapacious wretches are called Christians, the meek, mild and self-denying followers of Jesus ought to have some other name; rather call them heretics, fanatics, wild enthusiasts, or persons disordered in their brains.

In the sixth century also, a vast multitude of Jews were converted to Christianity, and added to the Church. "Many," says Mosheim, "were brought over to the truth by the persuasion and influence of the Emperor Justinian." "It must, however, be acknowledged," says he, "that these conversions were owing to the liberality of the Christian princes or to the fear of punishment, rather than to the force of argument or the love of truth. In Gaul the Jews were compelled by Childeric to receive the ordinance of baptism, and the same despotic method of converting was practised in Spain." These Jews, therefore, must have found themselves in error still worse than the first.

About the same time the Catholic Gospel was propagated in Britain among the Anglo-Saxons, and the Caledonian tribes: and also in Germany among the Bohemians, Thuringians, and Boii. But it must be confessed, even by Mosheim, "that the converted nations now mentioned retained a great part of their former impiety, superstition, and licentiousness; and that, attached to Christ by a mere outward and nominal profession, they in effect renounced the purity of his doctrine, and the authority of his Gospel by their flagitious lives, and the superstitious and idolatrous rites and institutions which they continued to observe." Thus, these barbarous nations, through the despotic power of their more barbarous conquerors, are compelled to make a mere outward or nominal profession of Christianity, without amending their lives or quitting their former idolatrous practices.

Pope Gregory, called the Great, sent into Britain, in the year 596, A. D., forty Benedictine monks, with Augustin at their head. This monk Augustin, on account of his labors in propagating the Catholic Gospel in Britain, is styled the British Apostle, and was the first Archbishop of Canterbury. After his arrival in England he converted the heathen temples into places of Christian worship: and Gregory, in his epistle to the Anglo-Saxon converts, permits them

† Id. Cent. VI.

to sacrifice in honor of the saints on their respective holidays the victims which they had formerly offered to the gods.

The same account of the *celestial light* and the *divine Gospel* runs through the seventh century, and St. Columban, St. Gal, and St. Kilian, and other great saints are said to convert Franks, Frieslanders, and other nations to the religion of Jesus. But again Mosheim confesses with respect to these gospelizers that "many of them discovered in the course of their ministry the most turbulent passions, arrogance and ambition, avarice and cruelty. And instead of gaining souls to Christ they usurped a despotic dominion over their obsequious proselytes; and exercised a princely authority over the countries where their ministry had been successful." "The conversion of the Jews seemed at a stand in this century, though in many places they were barbarously compelled by the Christians (rather anti-Christians,) to make an outward and feigned profession of their faith in Christ." *

The Emperor Heraclius, incensed against that miserable people by the insinuations, as it is said, of the ecclesiastics, persecuted them in a cruel manner, and ordered multitudes of them to be inhumanly dragged into the Christian Churches in order to be baptized by compulsion. The same odious method of converting was practised in Spain and Gaul.

In the eighth century, Boniface, on account of his missionary labors and holy exploits, was distinguished by the honorable title of the Apostle of the Germans. But notwithstanding the eminent services he is said to have rendered to Christianity, Mosheim confesses that he "often employed violence and terror, and sometimes artifice and fraud, in order to multiply the number of Christians." It would be too tedious to pursue these Catholic gospelizers through all their tyrannical movements. Charlemagne in the same century commenced hostilities in behalf of the Church against those Saxons who inhabited Germany: "that valiant people," says Mosheim, "whose love of liberty was excessive and whose aversion to the restraints of sacerdotal authority was inexpressible." Yet this valiant people, who had hitherto stood their ground against the fraud and violence of monks and bishops, at last, overcome by the fear of punishment and the imperious language of victory, suffered themselves to be baptized, though with the greatest reluctance. For, according to the iniquitous law which these savage gospelizers had enacted, "every Saxon who contemptuously refused to receive the sacrament of baptism was to be punished with death." †

Such were the exploits of Charlemagne in the service of Chris-

* Mosheim's Ecclesiastical History, Cent. VII. † Id. Cent. VIII.

tianity, for which "succeeding generations," says Mosheim, "canonized his memory, and turned this bloody warrior into an eminent saint." But if Dr. Mosheim truly saw the absurdity of such an impious turn, how was it possible that he could canonize great numbers of such monstrous characters in his history under the name of Christians, and turn their *absurd and ridiculous doctrines*, with their pernicious effects, into the *Gospel of Christ* and *the benign religion of Jesus?* These that we have quoted are only a few example for illustration. We shall turn to them again by-and-bye, in illustrating chapter XVII. of Revelation.

Such warfare did the great Catholic Church wage with all to whom it came for twelve hundred and sixty years, until it overcame them; so that it could in a sense be said just before the outbreak of the Reformation that it had gotten dominion over all kindreds and tongues and nations; and that all who dwelt upon the earth, that is, in the now enlarged Roman world, worshipped or succumbed to it, all whose names were not written in the Book of Life of the Lamb slain from the foundation of the world: see verse 8. It is a comforting thought that in this universal dominion of spiritual despotism, superstition, and prostration there were a few who remained as witnesses for the truth, who amid persecutions, tribulations, affliction and death gave their testimony for the truth against error, superstition, and idolatry: always a few whose names were written in the Lamb's Book of Life. "My Father that gave them Me is greater than all, and no man is able to pluck them out of my Father's hand. "The secret of the Lord is with them that fear him, and he will show them his covenant." The blood of all those who were slain in the countries of Europe and western Asia on account of their witness for the truth, or against the errors of the Catholic system, during the long reign of this Catholic Empire, attests the infallible truth of the prophecy which we are considering. If it was written in letters of ink it was recorded fulfilled by this all-prevailing Power in letters of blood.

Verse 9: "If any man have an ear, let him hear." The idea to be conveyed here is that what was said concerning this beast is especially worthy of our attention; but the proposition being in a conditional mood, and the ear symbolising the understanding, indicates that all would not be able to understand aright concerning it. Let men be ever so conversant with history, they will not understand true prophecy aright except they be imbued with the same spirit as originally suggested it to the mind of the prophet. Verse 10: "He that leadeth into captivity shall go into captivity; he that killeth with the sword must be killed with the sword. Here is the

patience and the faith of the saints." Literally: He that leadeth into captivity goeth into captivity; but, doubtless, this is a present tense with future meaning. No power that we know to have ever existed on the earth made so many captives as the Pagan and Christian Roman power. No power ever wielded more universal and effectual dominion over the bodies and minds of men than the latter power did. Captivity of reason and of conscience is the most debasing kind of servitude; and this is the very kind of captivity which this Catholic system effected during the long period of its ascendency, and which it affects to-day where its power and influence prevail. But the idea of strict and retributive justice is here contained, and it is meant that this captivating power should be taken captive as a recompense for its crimes, which was gradually and constantly fulfilled in the case of the Roman Empire whose seat was at Constantinople, which lost its provinces one after another, and on all sides, so that at the time of the capture of the city by the Turks in 1453, the city was all that remained in the jurisdiction of the Emperor. And we see it also gradually and eminently fulfilled in the decline of those powers which constituted and supported the bishop of Rome as a temporal prince. Austria, a Papal German Empire, becomes humbled gradually and loses her power and prestige among the nations. And France, which has always been a supporter of the bishops of Rome, is conquered successively, and has her noblest sons brought into captivity by the Anglo-Saxon and German powers, and is deprived of her territories, both colonial and national. The Pope also lost his temporal power as an indirect result of the late war between Germany and France; the influence of the Papacy is gradually diminishing, so that to-day there is not one country in Europe or in the world, which can be said, as it was said all were formerly, to be governed civilly and religiously by the influence of the Papacy.

We believe that the influence of the Papacy will continue for a long time yet in the world; but it is such an influence, being deprived of any secular force, as can produce no effect if men will not voluntarily yield themselves to it; and it will be gradually diminishing and consuming until it becomes insensible among mankind, and a new and better order of things has arisen in its place. The Greek branch of the Catholic Church has to a great extent been extirpated long ago, with all its idolatry, by the Mahometans. It still remains the established Church of Russia, supported by the will and power of the Emperor, its head; and so it will be likely to remain so long as the present system of Church and State government remains to Russia, and until some much-desired change takes place there, which will cause that Church, with its idolatrous doctrines

and practices, to be set aside and discarded, to make place for another, a simpler, purer, and better religion. It should be a subject of desire, and of prayer by all true Christians that God would raise up a good man as Emperor of Russia, who, as the present Emperor is enfranchising the national serfs, may enfranchise Russia from that old and erroneous system of religion, and substitute and support a better, a truer religion in its stead. Many of the Emperors of Russia are commendable for the good sense they have displayed; and we hope that any of the Emperors into whose hands this book may come will give the attention to this subject which its importance deserves. "Here is the patience and the faith of the saints," that is, in all the evolutions and exercises of this beastly power the faith and patience of the true servants of God should be severely tried; tried even to persecution, deprivation, exile, and death. Faith and patience are the distinguishing characteristics of the saints in every age and country; and nowhere and in no age have their patience and faith been put to severer tests than in the Roman Empire during the long period of its Church and State domination.

Few remarkable changes were made in the constitution of the Court or Government established at Constantinople, from the days of Constantine the First to the capture of the city by the Turks. For over a thousand years, from Vespasian to Alexius Comnenus, the Cæsar was the second person, or at least the second degree, after the supreme title of Augustus, was more freely communicated to the sons of the reigning monarch. The Emperor Alexius now interposed, (about A. D., 1100) a new and supereminent dignity. This title was compounded of the names Augustus and Emperor, forming in the Greek the high-sounding title of Sebastocrator. He was exalted above the Cæsar upon the first step of the throne; the public acclamations repeated his name; and he was distinguished from the Emperor only by some peculiar ornaments of the head and feet. The Emperor alone could assume the purple buskins, and the close diadem or tiara which imitated the fashion of the Persian Kings. It was a high pyramidal cap of cloth or silk, almost concealed by a profusion of pearls and jewels; the crown was formed by a horizontal circle, and two arches of gold; at the summit or point of their intersection, was placed a globe or cross, and two strings or lappets of pearl depended on either cheek. Instead of red, the buskins of the Sebastocrator and Cæsar were green; and on their open coronets, or crowns, the precious gems were more sparingly distributed. Beside, and below the Cæsar, Alexius created the titles of Panhypersebastos, and the Protosebastos, titles which imply a priority and superiority above the simple name of Augustus; and this sacred and primitive

title of the Roman princes was degraded to the kinsmen and servants of the Emperor of Constantinople. To their favorite sons and brothers, the Emperors imparted the more lofty appellation of Lord, or Despot, which was illustrated with new ornaments and prerogatives, and placed immediately after the person of the Emperor himself. The five titles of Despot, Sebastocrator, Cæsar, Panhypersebastos, and Protosebastos, were usually confined to the Emperor's own kinsmen,—in modern language, the princes of the blood. Some few changes were also gradually introduced into the grade of officers pertaining to the palace, the treasury, the fleet and army; and the branches of the civil administration; old titles, as in the case of Augustus, descending in the scale, and newly invented ones being placed above them.

But the most lofty titles, and the most humble postures which have been applied to the Supreme Being were prostituted by flattery or fear, or compulsion to the Emperors, creatures of the same nature as those by whom they were given. The mode of adoration, of falling prostrate and kissing the feet of the Emperor, which was first borrowed by Diocletian from the court of Persia, was continued and aggravated till the last age of the Roman Empire of the East. Excepting only on Sundays, when it was waived from a motive of religious pride, this humiliating reverence was exacted from all who entered the Emperor's presence, from the princes invested with the diadem and purple, and from the ambassadors who represented their independent sovereigns, the Caliphs of Asia, Egypt, or Spain, the Kings of France and Italy, and the Latin Emperors of ancient Rome, after these kingdoms and states had been organized from the dismembered provinces of the Empire. It appears, however, that ambassadors occasionally refused to perform the required homage. In his transactions of business, Liutprand, bishop of Cremona, had the audacity to assert the free spirit of a Frank, and the dignity of his master Otho, the newly-created Emperor of the West, about A. D., 1000. Yet his sincerity cannot disguise the abasement of his first audience. When he approached the throne the birds of the golden tree began to warble their notes, which were accompanied by the roarings of two golden lions. With his two companions the ambassador was compelled to bow and to fall prostrate, and thrice to touch the ground with his forehead. He arose, but in the short interval the throne had been hoisted from the floor to the ceiling, the figure of the Emperor appeared in new and more gorgeous apparel, and the interview was concluded in haughty and majestic silence. The bishop of Cremona, in his narrative, represents the ceremonies of the court of Constantinople. In the morning and evening of each day,

the civil and military officers attended their duty in the palace; their labors were repaid by the sight, perhaps by the smile, of their lord; his commands were signified by a nod or a sign; but all earthly greatness stood silent and submissive in his presence. In his regular or extraordinary processions through the capital, he unveiled his person to the public view; the rites of policy were connected with those of religion, and his visits to the principal churches were regulated by the calendar of the Greek Church. On the eve of these processions, the gracious or devout intention of the monarch was proclaimed by the heralds. The streets were cleared and purified; the pavement was strewed with flowers, the most precious furniture, gold and silver plate, and silken hangings were displayed from the windows and balconies; and a severe discipline restrained and silenced the tumult of the populace. The march was commenced by the military officers at the head of their troops; they were followed in long order by the magistrates and ministers of the civil government; the person of the Emperor was guarded by his eunuchs and domestics; and at the church door he was solemnly received by the patriarch and his clergy. The applause did not proceed alone from the rude and spontaneous voice of the crowd. The most convenient stations were occupied by the bands of the blue and green factions of the circus; and their furious contests, which, in preceding ages had shaken the capital, were, in the later ages of the Empire, insensibly sunk to an emulation of servitude. From either side they echoed in responsive melody the praises of the Emperor; their poets and musicians directed the choir; and long life and victory were the burden of every song. The same acclamations were performed at the hall of audience, the banquet and the church; and as an evidence of boundless sway, they were repeated in the Latin, Gothic, Persian, French, and even English languages by the mercenaries who sustained the real or fictitious characters of these nations.

In the palace the Emperor was the first slave of the ceremonies which he imposed; the rigid forms which regulated every word and gesture continually besieged him in the palace and in his rural solitude. But the lives and fortunes of millions depended on his arbitrary will; and the firmest minds, superior to the allurements of pleasure and luxury, may be allured by the active pleasures of commanding their equals. The legislative, ecclesiastical, and executive powers were centered in the person of the monarch, and the last vestiges of the authority of the senate had been finally eradicated by the Emperor Leo, surnamed the Philosopher, in the latter part of the ninth century.

In the church of St. Sophia, the Emperor was solemnly crowned

by the Patriarch; at the foot of the altar the representatives of the people pledged their passive and unconditional obedience to his government and family. On his side he engaged to abstain as much as possible from the capital punishments of death and mutilation; he subscribed with his own hand his Orthodox creed; and he promised to obey the decrees of the general Councils and the canons of the holy Catholic Church. But his assurance of mercy was vague and indefinite: he swore, not to his people, but to an invisible judge; and, except in the inexpiable guilt of heresy, the ministers of the Church were always prepared to preach the indefeasible right, and to absolve the transgressions of their sovereign. The ecclesiastics of the Greek Church were themselves the subjects of the civil magistrate; at the nod of a tyrant the bishops were created, or transferred, or deposed, or punished with mutilation or with an ignominious death. Whatever might be their wealth and influence they could never succeed, perhaps owing to their immediate proximity to their master, in the establishing of an independent republic as the Latin clergy; and the Patriarch of Constantinople condemned what he may have secretly envied, the temporal greatness of his Roman brother. In the lapse of centuries a lethargy of servitude had stultified the minds, and superstition had rivetted the chains of the Eastern Romans. In the wildest tumults of rebellion they never aspired to the idea of a free state; and the private character of the prince appears to have been the only source and measure of their public happiness.

The reigns of most of the Roman Emperors of Constantinople are remarkably distinguished by ferocious cruelty and the most diabolical crimes. We have already given some idea of the character and actions of Constantine the First, and his immediate successors. Our space prevents us from giving even the shortest accounts which might be given of the character and reign of each successive Emperor who reigned at Constantinople for eleven centuries from the death of Constantius, the last of the sons of Constantine the First, in 361, A.D., to the complete subversion of the Empire by the Turks, in 1453 in the reign of Constantine the Twelfth. In this long period there reigned a great many successive Emperors, about ninety in all, as the lives of many of them were cut short by the hand of violence and by various causes. But we think it requisite to give a few examples out of many, which might be adduced, which may help to display their character.

Theodosius, under whose reign and auspices the Council of Constantinople was convened, A.D., 381, in which Council it was decreed that the Holy Spirit is equal with the Father and the Son, thus, as Mosheim expresses it, giving the "finishing touch" to the Trinity, caused,

according to the most moderate accounts, seven, but according to other respectable authorities, fifteen thousand people to be butchered at Thessalonica, because his lieutenant and one or two of the officers of his staff had been killed by the rabble of that city. The people of Thessalonica were treacherously invited in the name of the Emperor to the games of the circus; and such was their desire for those amusements that every consideration of fear or suspicion was disregarded by the numerous spectators. As soon as the assembly was complete, the soldiers, mostly barbarians, who had secretly been posted round the circus, received the signal, not for the races, but of a general massacre. The promiscuous carnage continued three hours without discrimination of strangers or natives, of age or sex, innocence or guilt. A foreign merchant, who had himself no concern in the murder of the officers, offered his own life and all his wealth to supply the place of one of his two sons; but while the father hesitated with equal tenderness which he should choose, while he was unwilling to condemn either, the soldiers determined his suspense by plunging their daggers at the same moment into the breasts of the helpless youths. The apology of the executioners, that they were obliged to produce the prescribed number of heads, serves only to increase by an appearance of design and order the horrors of this massacre. The diabolical crime of the Emperor was aggravated by his long previous residence at Thessalonica; (he now resided at Milan, whence he transmitted his murderous orders.) The situation of the unfortunate city, the dress and faces of its inhabitants were familiar, and ever present to his imagination afterwards.

The emperor Phocas, A. D., 602, who had been formerly a centurion, on coming to the throne which he usurped, put to death the Emperor Maurice, his wife, five sons and three daughters. On the approach of Phocas with a large army to the city, Maurice, with his wife and family, escaped in a bark to the Asiatic shore, to Chalcedon. Thither the ministers of death were despatched by Phocas: they dragged the aged Maurice from his sanctuary; and his five sons were successively murdered before the eyes of their agonized parent. At each stroke which he felt in his heart, he found strength to repeat a pious ejaculation: "Thou are just, O Lord, and thy judgments are righteous;" thereby, it might appear, showing the miserable state of abject and servile superstition in which his mind was. In his last moments, such was the rigid attachment to truth of this man, that he exposed to the soldiers the pious falsehood of a nurse who presented her own child instead of a royal infant. The tragic scene thus far was closed by the execution of the Emperor himself. The bodies of him and his five sons were cast into the sea;

their heads were exposed at Constantinople to the insults or pity of the multitude ; and it was not till signs of putrefaction had appeared that Phocas connived at the interment of these remains.

The discovery or the suspicion by Phocas of a conspiracy which was entered into against his life by the instrumentality of the wife of Maurice, caused him to put her and her three daughters also to death. A matron who, for her virtue, commanded the respect and compassion of mankind, the daughter, wife, and mother of Emperors, was tortured like the vilest malefactor to extort a confession of her design and associates ; and she, with her three daughters, was beheaded at Chalcedon on the same ground which had been stained with the blood of her husband and five sons. After such examples, it appears superfluous to enumerate the meaner victims of the rage and fury of Phocas. Their condemnation was seldom preceded by the forms of trial, and their punishment was embittered by the refinements of cruelty ; their eyes were pierced, their tongues were torn from the roots ; their hands and feet were cut off ; some expired under the lash, others in the flames ; others again were transfixed with arrows ; and a simple, speedy death was a mercy they were rarely favored with. The hippodrome, the scene of the pleasures and liberties of the Romans, was polluted with heads, and limbs, and mangled bodies ; and even the companions of Phocas appeared sensible that they could not depend upon his favor or their services to protect them from his tyranny. He himself, finally, after suffering a variety of insult and torture, had his head severed from his body after a reign of ten years, by Heraclius, who came to the throne in much the same manner as he did.

The violence and danger which attended the reigns of the Eastern Roman Emperors may be noticed from the fact that in the space of six centuries, which intervened between the Emperors Heraclius, and the conquest of Constantinople by the Latins, there reigned at least sixty Emperors, which would leave an average proportion of only ten years for the reign of each Emperor. This is far below the average length of the reign of monarchs, according to the chronological rule of Sir Isaac Newton, who from the experience of more recent and regular monarchies has defined about eighteen or twenty years as the term of an ordinary reign.

The practice of mutilation as a penalty for crime was very frequent in the Eastern Roman Empire ; the cutting out of the tongue, the pulling out of the teeth, the cutting off of the nose, of the feet, and hands ; the pricking and putting out of the eyes ; and tortures and pains of an astonishing variety were inflicted upon human beings. The whole history of this Empire and of the Emperors

presents generally such a uniformly horrible scene as to thoroughly disgust the reader and to send a thrill of horror through his whole being.

Constantine IV, 668–685, had bestowed on his two brothers, Heraclius and Tiberius, the title of Augustus, but with no substantial power. At their secret instigation, the troops of the province of Anatolia approached the city on the Asiatic side, demanded for the royal brothers the partition or exercise of sovereignty, and supported their seditious claims by a theological argument. They were Christians, they said, and Orthodox Catholics, the sincere votaries of the Holy and Undivided Trinity. Since there are three equal persons in heaven it is reasonable there should be three equal persons on earth. The Emperor invited these divines to a friendly conference, in which they might propose their arguments to the senate; they accepted the invitation, but the prospect of their bodies hanging on a gibbet, in the suburb of Galata, reconciled their companions to the unity of the reign of Constantine. He pardoned his brothers and their names were still pronounced in the public acclamations: but on the repetition or suspicion of a similar offence, these princes were deprived of their titles and noses in the presence of the Catholic bishops who were assembled at Constantinople in the sixth general council.

On the death of Constantine IV, the Empire devolved to Justinian the Second. His passions were strong, his understanding was feeble; and he was intoxicated with a foolish pride that his birth had given him the command of millions, of whom the smallest community would not have chosen him for their local magistrate. His favorite ministers were two beings belonging to two classes of men the least susceptible of human sympathy, a eunuch and a monk; to the one he gave the charge of the palace, to the other the finances: the former corrected the Emperor's mother with a scourge; the other suspended the insolvent tributaries with their heads downwards over a slow and smoky fire. Justinian enjoyed the sufferings and braved the revenge of his subjects for about ten years, till the measure of his crimes, and of their patience, was full. A successful revolution by Leontius deprived him of his nose, and banished him to Crim Tartary, now called the Crimea. He continued ten years in exile, and was again restored to his throne by the assistance of a Scythian king. In the mean time Leontius had been in his turn dethroned, and mutilated, and imprisoned by a usurper who called himself Tiberius. Justinian, on taking possession of the city, had these two usurpers dragged into the hippodrome, the one from his palace, the other from his prison. Before their execution, Leontius and Tiberius

were cast in chains before the throne of the Emperor; and Justinian planting a foot on each of their necks, contemplated about one hour the chariot race, while the fickle people shouted in the words of the Psalmist: "Thou shalt trample on the asp and the basilisk, and on the lion and the dragon shalt thou set thy foot!" His pleasures were inexhaustible in the infliction of tortures; neither private virtue nor public service could expiate the guilt of active or even passive obedience to a government established in his absence; and during the six years of his new reign he considered the axe, the cord and the rack as the only instruments of royalty. But his most implacable hatred was directed against the Chersonites, (the inhabitants of Crim Tartary,) who he believed had insulted him in his exile, and violated the laws of hospitality. He imposed a grievous tax on Constantinople in order to supply the preparation of a fleet and army to invade that distant country. "All are guilty, and all must perish," was the mandate of the cruel Justinian, and he entrusted the execution of his bloody project to his favorite, Stephen, who was known by the epithet of the "Savage." Yet even the savage Stephen imperfectly accomplished the intentions of his sovereign. By the time he was ready to attack, the greatest part of the inhabitants had withdrawn into the country, and the minister of vengeance contented himself with reducing the youth of both sexes to slavery, with roasting alive seven of the principal citizens, with drowning twenty in the sea, and reserving forty-two in chains to receive their doom from the mouth of the Emperor. On their return the fleet was wrecked upon the rocky shores of Anatolia, and Justinian applauded the obedience of the Euxine, which had involved in its watery bed so many thousands of his subjects and enemies; but the tyrant was still insatiate for blood; and despatched a second expedition to exterminate the remains of the proscribed colony. In the short interval the Chersonites had returned to their city. The imperial troops, unwilling and unable to execute the revenge of Justinian, escaped his displeasure by abjuring his allegiance; they invested Bardanes, under the name of Philippicus, with the purple; and, under the newly-created Emperor, steered back to the harbors of Sinope and Constantinople. On their arrival every tongue was ready to pronounce, and every hand to execute, the death of the tyrant. Destitute of friends and deserted by his guards, the stroke of an assassin ended his life. His son, Tiberius, had taken refuge in a church, his aged grandmother guarded the door; and the innocent youth, suspending round his neck the most formidable relics, embraced with one hand the altar, with the other the wood of the true cross. But the popular fury, deaf to his cries, and trampling on his

superstition, put an end to his life. And thus was extinguished the race of Heraclius, after a reign of one hundred years.

The new Emperor was after a very short reign, seized in his palace, bound, blinded, and deposed; another, Anastasius the Second, was elevated in his place, who also was soon deposed; and another, Theodosius the Third, also, both of whom submitted to Leo, and were permitted to embrace the ecclesiastical profession. The restless Anastasius risked and lost his life in treasonable enterprise; but Theodosius died a natural death. The simple word HEALTH, which he inscribed on his tomb, attests his confidence of philosophy or religion; and the fame of his miracles was long preserved among the people of Ephesus. The ecclesiastical profession was sought and obtained by unsuccessful usurpers and deposed Emperors: but its acceptance could be considered as only a descent in the scale of honor, for the reigning Emperor was always the supreme head of the Catholic Church, and the high priest of the nation.

The reign of Constantine V., 741–775, of thirty-four years, is said to have been a long butchery of whatever was holy or innocent or noble in the Empire. He assisted in person at the execution of his victims, viewed their agonies, listened to their groans, and indulged without satiating his appetite for blood. A plate of noses was acceptable to him as a grateful offering, and his domestics were often scourged or mutilated by his own royal hand; his lust confounded the eternal distinction of sex and species, and he seemed to extract some unnatural delight from the objects most offensive to human sense. Although the annals of those times are considerably obscure, owing to the vices which so generally prevailed as almost to extinguish the light of history, yet the numbers of the bishops and monks, the generals and magistrates who are said to have suffered under his reign, are recorded; the names were conspicuous, the executions were public, the mutilation visible and permanent.

But with all his inexpressible vices, Constantine V. is represented as possessed of some merit. He appeared on horseback in the field at the head of the legions; and although the fortune of his arms was various, he triumphed by sea and land, on the Euphrates and the Danube, in civil and barbarian war; and he peopled some of the Thracian territories with new colonies.

Leo IV., 775–780, the son of the Fifth, and the father of the Sixth Constantine, was desirous to associate with himself his infant son. The royal infant, at the age of five years, was crowned, with his mother Irene, and the national consent was ratified by every circumstance of pomp and solemnity that could dazzle the eyes or blind the conscience of the people. An oath of fidelity was administered

in the palace, the church, and the hippodrome to the several orders of the state, who adjured the holy names of the Son and Mother of God: "Be witness, O Christ, that we will watch over Constantine, the son of Leo; expose our lives in his service, and bear true allegiance to his person and prosperity." They pledged their faith on the wood of the true cross, and the act of their agreement was deposited on the altar of St. Sophia. The first to swear, and the first to violate their oaths were the five sons of Constantine the Fifth by a second marriage; and the story of these princes is singular and tragic. The right of primogeniture excluded them from the throne; their elder brother had unjustly defrauded them out of a legacy of about ten millions of dollars; they did not deem some vain titles a sufficient compensation for their wealth and for power: and they repeatedly conspired against their nephew before and after the death of his father.

Their first attempt was passed over; for the second offense they were condemned to the ecclesiastical state: and for the third, Nicephorus, the eldest, was deprived of his eyes, and his four brothers were punished, as a milder sentence, by the amputation of their tongues. After five years confinement they escaped to the church of St. Sophia, and displayed a pathetic spectacle to the people. "Countrymen and Christians," cried Nicephorus, for himself and his tongueless brethren, "behold the sons of your Emperor, if you can still recognize our features in this miserable state. A life, an imperfect life, is all that the malice of our enemies has spared. It is now threatened; and we now throw ourselves on your compassion." The presence of a minister checked the rising murmur of the people. The princes were taken to the palace, and embarked for Athens, where they were finally plunged in darkness and oblivion. The young Emperor himself was afterwards blinded by the cruel ambition of his mother Irene. Her emissaries assaulted the sleeping prince, and stabbed their daggers with such precipitation and violence into his eyes as if they meant to execute a mortal sentence. Yet the blind son of Irene survived many years, oppressed by the court and forgotten by the world.

To the bloody deed of Irene superstition has attributed a subsequent darkness of seventeen days, during which many vessels in midday were driven from their course, as if the sun, a fiery globe, so vast and so remote, had sympathized with a few atoms of this revolving planet. But the Roman world for five years after bowed to the government of Irene; and as she moved through the streets of Constantinople the reins of her four milk white steeds were held by as many patricians, who marched on foot before the golden chariot of

their Empress. But these patricians were, for the most part, eunuchs; and their base ingratitude justified for them on this occasion the popular hatred and contempt. Raised, enriched, and entrusted with the first dignities of the Empire, they perfidiously conspired against their benefactress; the great treasurer, Nicephorus, was invested with the purple, introduced as her successor into the palace, and crowned at St. Sophia by the venal Patriarch. He banished Irene to the Isle of Lesbos, where she is said to have earned a scanty subsistence by her labors with the distaff. Irene was one of those sovereigns of Constantinople who sustained and favored the worship of the images.

The character of Nicephorus was stained with three odious vices, hypocrisy, ingratitude, and avarice; his want of virtue was not redeemed by any superior talents, nor his want of talents by any pleasing qualifications. Unskilful and unfortunate in war, he was slain by the Bulgarians; and the advantage of his death overbalanced in the public opinion the destruction of a Roman army.

The famous and unfortunate Bardanes, who was a rebel in the time of Nicephorus, had once consulted an Asiatic prophet, who, after prognosticating his fall, announced the fortunes of his three principal officers, Leo, the Armenian, Michael, the Phrygian, and Thomas, the Cappadocian—the successive reigns of the two former, the fruitless and fatal enterprise of the third. The prediction was verified or produced by the event. Ten years after the crown was offered to the same Leo in the Thracian camp, he being the first in military rank, and the secret author of the mutiny. As he hesitated accepting it, "With this sword," said his companion, Michael, "I will open the gates of Constantinople to your imperial sway, or instantly plunge it into your bosom, if you obstinately resist the just desires of your fellow-soldiers." The compliance of the Armenian was rewarded with the Empire, and he reigned seven and a half years under the name of Leo. V., 813–820. Educated in the camp, and ignorant both of laws and letters he introduced into his civil government the rigor and cruelty of military discipline; but if his severity was sometimes dangerous to the innocent, it was always formidable to the guilty. His religious inconstancy gained for him the epithet of Cameleon, but some Catholic writers have acknowledged that the life of Leo, the Iconoclast (image-breaker) was useful to the State. The zeal of his companion, Michael, he repaid with riches, honors, and military command; and his subordinate talents were beneficially employed in the public service. Yet the Phrygian was dissatisfied with receiving as a favor only a scanty portion of the prize which he had bestowed on his equal; and his discontent,

which sometimes evaporated in hasty words, at length assumed a more threatening and hostile aspect against a prince whom he represented as a cruel tyrant. The tyrant, however, repeatedly detected, admonished, and dismissed the old companion of his arms, till fear and resentment prevailed over gratitude; and Michael, after a scrutiny into his actions and designs, was convicted of treason and sentenced to be burned alive in the furnace of the private baths. The devotion of the Empress Theophano was fatal to her husband and family. The twenty-fifth of December had been fixed for the execution; she urged that the anniversary of the Saviour's birth would be profaned by this inhuman spectacle, and Leo reluctantly consented to a respite. But on the vigil of the feast his sleepless anxiety prompted him at the dead of night to visit the chamber in which his enemy was confined; he perceived him released from his chain and stretched on his jailor's bed in a profound slumber. Leo was alarmed at these signs of security and intelligence; but though he retired with silent steps, his entrance and exit were noticed by a slave who lay concealed in a corner of the prison. Under the pretence of requesting the aid of a spiritual confessor, Michael informed the conspirators that their lives depended on his discretion, and that a few hours were left to secure their own safety, and the deliverance of their friend and country. On the great festivals a chosen band of priests and chanters were accustomed to be admitted into the palace by a private gate to sing matins in the chapel: and Leo, who, as high priest, regulated with the same strictness the discipline of the choir and of the camp, was seldom absent from these early devotions. In the ecclesiastical habit, but with swords under their robes, the conspirators mingled with the profession, lurked in the angles of the chapel, and awaited, as the signal of their onslaught, the intonation of the first Psalm by the Emperor himself. The imperfect light and the uniformity of dress might possibly have favored his escape while they directed their assault against a harmless priest; but they soon discovered their mistake and encompassed upon all sides their royal victim. Without a weapon and without a friend, he grasped a weighty cross and stood at bay against the hunters for his life; but as he asked for mercy, "This is the hour, not of mercy, but of vengeance," was the inexorable reply. The stroke of a sword separated from his body the right arm with the cross, and Leo was slain at the foot of the altar.

A memorable reverse of fortune was exhibited in Michael the Second, who, from a defect in his speech, was surnamed the Stammerer. He was snatched from the furnace of fire to the sovereignty of the Empire; and, as at that early hour, and in the tumult a

smith could not readily be found, the fetters remained on his legs several hours after he was seated on the Imperial throne. The blood which had been the price of his elevation was unprofitably spent. On the throne he retained the ignoble vices of his origin, and Michael lost his provinces with as supine an indifference as if they had been the inheritance of his fathers. His title was disputed by Thomas, the last of the military triumvirate, who transported into Europe eighty thousand barbarians from the banks of the Tigris and the shores of the Caspian. He undertook the siege of Constantinople, but the city was defended by spiritual and carnal weapons. A Bulgarian king was induced to assault the camp of the Asiastics, and Thomas had the weakness, or the misfortune, to fall alive into the hands of the conquerors. His hands and feet were amputated; he was placed on an ass, and, amid the insults of the populace, was led through the streets of the capital, which he sprinkled with his blood. The depravity of manners, as savage as they were corrupt, is marked by the presence of the Emperor himself at this inhuman spectacle and procession. Deaf to the doleful lamentations of his suffering fellow-soldier, he incessantly pressed the discovery of more accomplices, till his curiosity was checked by the inquiry of an honest or guilty minister: "Would you give credit to an enemy against the most faithful of your friends?"

The character of Theophilus, the son and successor of Michael, was distinguished by the abuse of his arbitrary power. His justice was fashioned on the model of the Oriental despots, who, in personal and irregular acts of authority, consult the reason or passion of the moment, without measuring the sentence by the law, or the penalty by the offence. A poor woman threw herself at his feet to complain of a powerful neighbor, the brother of the Empress, who had raised his palace wall to such an inconvenient height as to exclude her humble dwelling from light and air. On the fact being proved, instead of granting, like any ordinary judge, sufficient for damages to the plaintiff, the Emperor adjudged to her use the palace and the ground. Nor was Theodosius content with giving this extraordinary satisfaction; in his zeal he converted a civil trespass into a criminal act, and the unfortunate patrician was whipped and scourged in the public place of Constantinople. For some slight offences, some defects of equity or vigilance, the principal ministers, a prefect, a quæstor, a captain of the guards, were banished or mutilated, or scalded with boiling pitch, or burned alive in the hippodrome. This extraordinary rigor may be thought to have been justified in some measure by the consequences; since, after a scrutiny of seventeen days, not a complaint or abuse could be found in the court or city,

intelligence which gratified the pride of the monarch; and it might be alleged that the people could be ruled only with a rod of iron, and that the public interest is the motive and law of the supreme judge. Yet, in the crime, or the suspicion of treason, that judge is, of all others, likely to be the most credulous and partial.

A Persian prince died at Constantinople, leaving an only son. At the age of twelve years, the royal birth of Theophobus was revealed, and he appeared not unworthy of his birth. He was educated in the Byzantine palace, advanced with rapid steps in the career of fortune and glory, received in marriage the Emperor's sister, and was promoted to the command of thirty thousand Persians, who, like his father, had fled from the Mahometan conquerors. These troops were desirous of deserting from the Emperor, and erecting the standard of their native king, but Theophobus rejected their offers, disconcerted their schemes, and escaped from them to the camp or palace of his brother-in-law. By a generous confidence, if not a sense of gratitude, Theophilus might have secured a faithful and able guardian for his wife and infant son, to whom, in the flower of his age, he was about to leave the inheritance of the Empire. But his jealousy was exasperated by envy and disease; he suspected and feared the virtues which might either supplant or oppress their weakness; and the dying Emperor demanded the head of the Persian prince. With savage delight, he gazed upon the familiar features of his brother-in-law and benefactor. "Thou art no longer Theophobus," he said, and sinking on his couch he added, with a faltering voice: "Soon, too soon, I shall be no more Theophilus." His last choice entrusted his wife Theodora with the guardianship of the Empire, and his son Michael, who was left an orphan in the fifth year of his age.

The restoration of image-worship, and final extirpation of the Iconoclasts, has endeared the name of Theodora to the Greek Church. After thirteen years of a frugal administration, 829–842, she perceived her influence declining; but the second Irene appears to have imitated only the virtues of her predecessor. Instead of conspiring against the life or government of her son, she retired from the throne without a struggle, though not without a murmur, to the solitude of private life, deploring the ingratitude, the vices, and the inevitable ruin of the worthless youth.

Among the successors of Nero and Elagabalus, Pagan Emperors, we have not yet, in the course of our illustrations of the characters of the Christian Emperors, found the imitation of their vices, the character of a Roman prince who considered pleasure as the object of life, and virtue as the enemy of pleasure. Whatever maternal

care Theodora might have bestowed upon the youthful education of Michael the Third, her unfortunate son considered himself an Emperor before he was a man. If the ambitious mother labored to check the progress of his reason, she could not restrain the outbreaks of his passion; and her selfish policy was amply recompensed by the contempt and ingratitude of the headstrong youth. At the age of eighteen, he rejected the authority of his mother, without feeling his own incapacity to govern the Empire himself. With Theodora, all gravity and prudence retired from the court. Their places were supplied by the alternate dominion of vice and folly, and it was impossible, without forfeiting the public esteem, to acquire or preserve the Emperor's favor. The millions of gold and silver which had been accumulated for the service of the state he lavished on the vilest of men who flattered his passions and shared his pleasures; and in a reign of thirteen years the richest of sovereigns was compelled to strip the churches and the palace of their precious furniture. Like Nero, he delighted in the amusements of the theatre, and sighed when surpassed in the accomplishments in which he should have been ashamed to excel.

Yet the studies of Nero in music and painting indicated some symptoms of a liberal taste; the more ignoble arts of Michael the Third were confined to the chariot-race of the hippodrome. The four factions, distinguished by their colors, which had long agitated the peace, still amused the idleness of the capital. For himself, the Emperor assumed the blue livery. The three rival colors were distributed to his favorites; and in the vile, though eager emulation, he forgot the dignity of his office and the safety of his dominions. He silenced the messenger who presumed to divert his attention by announcing to him an invasion in the most critical moment of the race; and by his command the importunate beacons were extinguished which too frequently spread the alarm from Tarsus to Constantinople. The most skilful characters in the performances of the circus obtained the first place in his confidence and esteem. Their merit he profusely rewarded. He feasted in their houses and presented their children at the baptismal font; and while he applauded his own popularity he affected to blame the cold and stately reserve of his predecessors. The strength of Michael was consumed by unnatural lusts, love and intemperance. In his midnight revels when his passions were inflamed by wine, he was provoked to issue the most sanguinary commands: and if any feelings of humanity were left, he was induced with the return of sense to approve the salutary disobedience of his servants. But a remarkable feature in the character of Michael is his profane mockery of the religion of his

country. The religion of the Eastern Romans might indeed excite the contemptuous smile of a philosopher; but his smile would have been rational and temperate; and he would have condemned the ignorance and folly of a youth who insulted the objects of public veneration, even though they were ridiculous. A buffoon of the court was invested in the robes of the Patriarch: his twelve metropolitans, among whom the Emperor ranked himself, assumed their ecclesiastical paraphernalia; they used or abused the sacred vessels of the altar; and in their bacchanalian feast the communion was administered in a nauseous compound of vinegar and mustard. Nor were these impious spectacles attempted to be concealed from the view of the citizens. On the day of a solemn festival the Emperor, with his bishops, or buffoons, rode on asses through the streets, encountered the real Patriarch at the head of his clergy; and by their licentious shouts and obscene gestures disordered the gravity of the Christian procession. The devotion of Michael appeared only in some offence to reason or piety; he received his theatrical crowns from the statue of the Virgin: and he violated an imperial tomb for the sake of burning the bones of Constantine the Iconoclast. By such extravagant conduct the Emperor became as contemptible as he was odious; every citizen was impatient for the deliverance of his country; and even his favorites were continually apprehensive that a caprice might snatch away what a caprice had bestowed. In the thirteenth year of his reign, and in the hour of drunkenness and sleep, Michael the Third was murdered in his chamber by Basil the Macedonian, the founder of a new dynasty, whom the Emperor had raised to an equality of rank and power.

Among the warriors who promoted the elevation of Nicephorus, the seventh successor of Basil the Macedonian, and served under his standard, was an Armenian, named John Zimisces. The stature of Zimisces was below the ordinary standard; but though diminutive in size he was distinguished by strength and beauty as well as by great courage and success in war. By the jealousy of the Emperor's brother he was degraded from the office of general of the East to that of director of the posts, and murmuring, he was chastised with degradation and exile. But Zimisces was numbered among the many lovers of the Empress Theophano, the wife of Nicephorus. On her intercession he was permitted to reside at Chalcedon in the vicinity of the capital. Her generosity was repaid in his clandestine and amorous visits to the palace: and upon their consultation, Theophano consented with alacrity to the death of her unlovely and penurious husband. Some bold and trusty conspirators were concealed in her private apartments; in the darkness of a winter's night Zimisces.

with his principal companions, embarked in a small boat, crossed the Bosphorus, landed at the palace stairs, and silently ascended a ladder of ropes which was cast down by the female attendants. Neither his own suspicions, nor the warnings of his friends, nor the fortress which he had erected in the palace could protect Nicephorus from a domestic foe, his wife, at whose command every door was thrown open to the assassins. As he slept on a bear-skin on the floor he was roused by their noisy intrusion, and thirty daggers glittered before his eyes. The murder was protracted by insult and cruelty. Zimisces, after ordering the wounded Emperor to be dragged to his feet, and heaping insults upon him, to which the suffering man only replied by invoking the name of the "Mother of God," with his own hand plucked his beard, while his accomplices beat out his teeth with the hilts of their swords; and then trampling him on the floor he drove his sword into his skull. As soon as the head of Nicephorus was shown from the window, the people consented, and Zimisces was declared Emperor, 969–976. On the day of his coronation he was confronted by the Patriarch on the threshold of St. Sophia, who charged his conscience with the deed of treason and blood, and required as a sign of his repentance that he would separate himself from his more criminal associate. This sally of apostolic zeal was nowise offensive to the new Emperor, since he could neither love nor trust a woman who had repeatedly violated the most sacred obligations; and Theophano, instead of sharing the imperial fortune, was dismissed with ignominy from his bed and palace. In their last interview she displayed a frantic and impotent rage; accused the ingratitude of her lover; assaulted with words and cuffs her son Basil, as he stood silent and submissive in the presence of a superior colleague: and avowed her own prostitution in proclaiming the illegality of his birth. She was exiled; her meaner accomplices were punished; and the guilt of Zimisces was forgotten in the splendor of the virtues which he displayed. In this age of darkness and degeneracy he frequently exhibited his valor in conquest upon the banks of the Tigris and the Danube, the ancient boundaries of the Roman world. In his last return from Syria he observed that the most fruitful lands of the new provinces were possessed by the eunuchs. "And is it for them," he exclaimed, with honest indignation, "that we have fought and conquered?" This complaint was re-echoed to the palace; and the death of Zimisces is strongly marked with the suspicion of poison administered by the eunuchs.

Andronicus, one of the royal princes, had to go into exile on account of his crimes, in order to keep out of the power of the reigning Emperor, Manuel. The death of the latter, and the minority of

the Emperor, his son, who was now only twelve or fourteen years old, opened the way for the return of Andronicus, 1180–1185. Before his return he had held communication with the authorities of the city, in which he affected the greatest loyalty to the young Emperor and the Empire. His correspondence with the Patriarch and the patricians was aptly seasoned with quotations from the Psalms of David and the Epistles of St. Paul, and he patiently waited till he was called to her deliverance by the voice of his country. His professions of loyalty and religion were taken for the language of his heart; and all opposition giving way before him, he was admitted to the city as the saviour of the Empire. It was his first care to occupy the palace, to salute the Emperor, to confine his mother, to punish her minister, and to restore the public order and tranquillity. He then visited the tomb of Manuel; the spectators were ordered to stand aloof; but as he bowed in the attitude of prayer, they heard, or thought they heard, the following murmur of triumph or revenge: "I no longer fear thee, my old enemy, who hast driven me, a vagabond, to every climate of the earth. Thou art safely deposited under a seven-fold dome, from whence thou canst never rise till the signal of the last trumpet. It is now my turn, and speedily will I trample on thy ashes and thy posterity." From his subsequent tyranny we may impute such feelings to the man at the moment; but we will not affirm positively that on this occasion he gave an articulate sound to his secret thoughts. In the first months of his reign his designs were veiled by a specious resemblance of hypocrisy: the coronation of Alexius, the young son of Manuel, was performed with the usual solemnity; and his perfidious guardian, holding in his hands the symbols of the body and blood of Christ, most fervently declared that he lived, and was ready to die, for the service of his beloved pupil. But his numerous attendants were instructed to maintain that the sinking Empire must perish in the hands of a child; that the Romans could only be saved by a veteran prince, bold in arms, skilful in policy, and taught to reign by the long experience of fortune and of mankind; and that it was the duty of every citizen to prevail upon Andronicus to undertake the burden of the public care. The young Emperor was himself persuaded to join his voice to the public acclamations, and to solicit the association of a colleague, who, on his elevation, instantly degraded him from the supreme rank, secluded his person, and verified the rash declaration of the Patriarch that Alexius might be considered as dead, as soon as he was committed to the custody of his guardian. But his death was preceded by the imprisonment and execution of his mother. After blackening her reputation and inflaming against her

the passions of the multitude, the tyrant accused and tried the Empress for a treasonable correspondence with the King of Hungary. His own son, a youth of honor and humanity, expressed his abhorrence of this flagitious act, and three of the judges had the merit of preferring their conscience to their safety; but the obsequious tribunal, without requiring any proof, or hearing any defence, condemned the Empress; and her unfortunate son was prevailed on to subscribe the sentence of her death. The Empress was strangled: her corpse was buried in the sea; and her memory was wounded by the insult, most offensive to female vanity, a false and ugly representation of her handsome form. The fate of her son was not long deferred; he was strangled with a bow-string; and the tyrant, insensible to pity or remorse, after surveying the dead body of the youthful Emperor, struck it rudely with his foot, and exclaimed: "Thy father was a knave, thy mother a whore, and thyself a fool!" The Roman sceptre, the reward of his crimes, was held by Andronicus, for about three years and a half, as the guardian or sovereign of the Empire. His government displayed a singular contrast of vice and virtue. When he gave way to his passions, he was the scourge, when he consulted his reason, the father of his people. But the ancient proverb, that bloodthirsty is the man that returns from banishment to power, and which we have seen to be verified in the case of Justinian II. in such a remarkable degree, was now again verified in the life of Andronicus. His memory was stored with a black list of the enemies and rivals that had traduced his merit, opposed his greatness, or insulted his misfortune, and, as Justinian, the only comfort of his exile was the sacred hope and promise of revenge. The necessary extinction of the young Emperor and his mother imposed the fatal obligation of extirpating the friends who hated and might punish him, the assassin; and the repetition of murder rendered him less willing and less able to forgive. A horrid narrative of the victims whom he sacrificed by poison and the sword would be less expressive of his cruelty than the appellation of the "halcyon days," which was applied to a rare and bloodless week of repose. The tyrant strove to transfer on the laws and the judges some portion of his guilt; but the mask had fallen, and his subjects could no longer mistake the true author of their calamities. The noblest of the citizens, more especially those who, by descent or alliance, might dispute the inheritance of the throne, escaped from the monster's den. Nice or Prusa, Sicily or Cyprus, were their places of refuge; and as their flight was already criminal, they aggravated their offence, began open revolt, and assumed the imperial title. Yet Andronicus resisted the dangers and swords of his most formidable enemies. Nice and Pusar

he reduced and chastised; the Sicilians were contented with the pillage of Thessalonica; and the distance of Cyprus rendered it no more propitious to the rebels than to the tyrant. His throne was subverted by a rival without merit, and a people without arms. Isaac Angelus, a descendant in the female line from the Great Alexius, was marked as a victim by the prudence or suspicion of the Emperor. In a moment of despair, Angelus defended his life and liberty; slew the executioner, and flew to the Church of St. Sophia. The sanctuary was insensibly filled with a curious and mournful crowd, who in his fate prognosticated their own. But their lamentations were soon turned to curses, and their curses to threats; they dared to ask: "Why do we fear? Why do we obey. We are many, and he is one; our patience is the only bond of our slavery." With the dawn of the day the city burst into a general sedition; the prisons were thrown open; the coldest and most servile were roused to a defense of their country, and Isaac, the second of his name, was raised from the tomb, or the sanctuary, to the throne. Unconscious of his danger the tyrant was absent, withdrawn from the toils of state, in company with his wife and mistress, in one of the beautiful islands of the Propontis. On the first alarm, he hastened to Constantinople, impatient for the blood of the guilty; but he was astonished by the silence of the palace and the tumult of the city, and his general desertion by mankind. Andronicus proclaimed a free pardon to his subjects; but they neither desired, nor would grant forgiveness; he offered to resign the crown to his son Manuel; but his son's virtues could not expiate his crimes. The sea was still open for his retreat, but the news of the revolution had flown along the coast. When fear had ceased, obedience was no more; the imperial galley was pursued and taken by an armed brigantine; and the tyrant was dragged to the presence of Isaac Angelus, loaded with fetters, and a long chain round his neck. His eloquence, and the tears of his female companions pleaded in vain for his life; but instead of the process of a legal execution, the new monarch abandoned him to the fury of the numerous sufferers whom he had deprived of a father, a husband, or a friend. His teeth and hair, an eye and a hand, were torn from him as a poor compensation for the loss, and a short respite was allowed him, that he might feel the bitterness of death. Astride on a camel he was carried through the city, and the basest of the populace delighted to heap insults on their fallen Emperor. After a thousand blows and outrages, Andronicus was hung by the feet between two pillars that supported the statues of a wolf and a sow; and every hand that could reach the public enemy, inflicted on his body some mark of ingenious or brutal cruelty till two furious or friendly

Italians plunged their swords into his body, and released him from all punishment. In this long and painful agony, "Lord have mercy upon me," and, "Why will you bruise a broken reed," were the words which he kept continually repeating.

Isaac Angelus was afterwards dethroned in consequence of his own vices and the ambition of his brother; and their discord introduced the Franks to the conquest of Constantinople, 1204.

Such are only a few examples out of many which might be adduced to illustrate the character of the Eastern Roman Emperors, and of that monarchy established at Constantinople. In the intervals of the Byzantine dynasties the succession is rapid and broken, and the name of a successful candidate is speedily erased by a more fortunate competitor. Many were the paths that led to the summit of royalty: the fabric which was raised by a rebellion was soon overthrown by the stroke of a conspiracy, or undermined by the silent arts of intrigue. The favorites of the soldiers or people, of the senate or clergy, of the women and eunuchs were alternately clothed with the purple. The means of their elevation was base, and their end was often contemptible or tragic, some of them being poisoned by their wives; and such crimes as we have been reviewing were practised till the last age of the Eastern Empire. And what must have been the amount of crime committed, and suffering inflicted in the way of mutilation, and whipping, and torture, and all sorts and species of cruelties and death throughout the Empire for a period of over eleven hundred years? for we may certainly believe that the example of the capital was followed, at least to some extent, in all the provinces by the governors and local magistrates! Truly such a contemplation sends a thrill of horror to our heart, and brings a tear of sympathy and commiseration to our eye! Truly, the contemplation of such a scene is enough to soften the most obdurate and unsympathizing heart! Who can now any longer doubt that the symbol of the "wild beast," with all the marks of a ferocious wild beast which we have considered in the beginning of chapter XIII. of Revelation, has here had its exact fulfilment? The truth is, this is just its fulfilment, as we have all through illustrated, attempt to disguise it as we may. Who of us will now dare speak of the Pagan cruelties of Nero and Domitian, of Decius and Diocletian, while we have ourselves such monsters calling themselves Christian; monsters who surpassed in wickedness even most of the examples of Paganism with which we are acquainted, and who had been the supreme heads of the Catholic church, the high priests of the Empire, for twelve hundred years.

An Explanation of Chapter xvii. Revelation, showing its Fulfilment in the Roman Catholic Church and State System established by the Popes and the Western Rulers, especially Charlemagne and the German Emperors, with reference to Parallel Prophecies in the Book of Daniel.

Before proceeding any further in our explanation of the XIIIth chapter of Revelation, we think it not only expedient but necessary to give an exposition of chapter XVII. of the same book, which has reference to the rise and existence of another power somewhat similar to the one we have just considered, that is, one comprising in itself the two branches of civil and religious power, and whose centre or seat was the city of Rome. In our explication and illustration of the last we had to keep our eye directed to Constantinople as a centre, but did not confine it to that city exclusively. Here we shall keep our eye directed to Rome as a centre, but will not by any means confine it exclusively to that city.

Rev. Ch. XVII., 1–3: "And there came one of the seven angels which had the seven vials, and talked with me, saying: Come hither; I will show unto thee the judgment of the great whore that sitteth upon many waters, with whom the kings of the earth have committed fornication, and the inhabitants of the earth have been make drunk with the wine of her fornication." Thus far we have the simple idea presented of a symbolic woman, sitting upon many symbolic waters, committing symbolical fornication with the kings or rulers of the earth; and symbolically intoxicating the inhabitants of the earth with the wine of her fornication. In the last verse of this chapter, v. 18, this symbolic woman is explained to be the great city which (lit.) hath a kingdom over the kings of the earth. The city of Rome, we know, was long acknowledged the mistress of the world, as having been conquered and ruled by her sons. Thus Rome had a dominion or kingdom over the rulers of the earth, a real substantial one. The Roman Catholic religion claims, and has for many centuries claimed, a dominion over all earthly kingdoms and dominions, which dominion it has wielded no less effectually than the old city of Rome did her temporal power. While the Catholic Church, as established at Constantinople, always acknowledged the Emperor as its supreme head, which headship, as well of the Church as of the State, the Emperors claimed even over Rome itself, until the final extinction of the Empire by the Turks in the fifteenth century; the Catholic Church, as it grew up and was established at Rome and in the western prov-

inces of the Empire, on their gradually falling off and seceding from the central government at Constantinople, acknowledged the bishop of Rome as its supreme head. This supreme headship the bishops of Rome assumed to themselves, when they gradually became free from the power of Constantinople, and were favored and supported by the rulers that sprung up in the western provinces, especially the rulers ot France and Germany. This Church, through all its various agencies, exercised its influence over the kings or rulers of the earth, causing them to imbibe its doctrines, to profess and support its faith, to practise its rites and ceremonies, to act as the instruments of its establishment, its propagation and its maintenance by their secular power. It exercises such a power over them, having professed its faith and yielded to its influence, as an artful and crafty woman is able to exercise over a man whom she has allured and intoxicated, so that this Church did and does exercise an effectual dominion over the rulers of the earth. And not only the rulers, but all the inhabitants of the earth were to be made drunk by the wine of her fornication: mankind generally would, through her craftful agencies and instrumentalities, imbibe her doctrines (drink them in, as the simple-minded man will the intoxicating draught which is given him by the hand of the artful woman), ravingly profess her creed without being able to give a sound reason for their belief of one of its tenets, transmit them to their posterity as the religious belief of their fathers, and for them to follow on that account; and wonder with great admiration, in their intoxicated state, at the specious greatness of the mysterious woman. The fundamental and general doctrines of the Greek and Latin branches of the Catholic Church are the same; they differ mainly as to the headship of the Church; and this difference sprung up insensibly with the gradual aggrandizement of the bishop of Rome, which culminated in his assumption of superiority, not only over all his brother bishops of the Empire, but, as it were, over the Emperor himself, and all earthly rulers. In the year 1452, the year immediately preceding that on which Constantinople was taken by the Turks, a union of the two branches of the Catholic Church was effected, and the act of union subscribed in the Church of St. Sophia, at Constantinople, by the representatives of both. There still continued, however, differences of opinion between them as to minor points. There are also some differences between the two Churches, which, doubtless, arise mainly from the difference of headship or government which, we know, possesses the power of originating or setting aside certain institutions in the Church. Thus, while the clergy of the Greek branch of the Catholic Church exercise the right of marriage according to their discretion,

somewhat after the manner of the primitive Christian clergy, those of the Latin branch are prohibited by their peculiar laws from marrying, and the law with respect to the celibacy of the clergy was established in the Church of Rome by the decree of Pope Gregory VII., about A.D., 1075.

All nations, therefore, of Christendom, were affected with the doctrines of the Catholic Church, that is, with yielding to its influence, professing its doctrines; in short, by yielding obedience to it.

Verses 3–6: "So he carried me away in the Spirit into the wilderness, and I saw a woman sit upon a scarlet-colored beast, full of names of blasphemy, having seven heads and ten horns. And the woman was arrayed in purple and scarlet color, and decked with gold and precious stones and pearls, having a golden cup in her hand, full of abominations and filthiness of her fornication; and upon her forehead was a name written, MYSTERY, BABYLON THE GREAT, THE MOTHER OF HARLOTS, AND ABOMINATIONS OF THE EARTH." Here we have the compound idea presented of a scarlet-colored wild beast (θηρίων) having seven heads and ten horns, and a woman gorgeously apparelled in purple and scarlet, and decked with gold, precious stones and pearls, having a golden cup in her hand, full of abominations, and a conspicuous name written on her forehead, seated upon him. This compound idea represents the Church and the State which, in the case of the Roman Empire, we have had represented under a simple symbolical idea of a wild beast (θηρίων). This wild beast also has seven heads, which indicate completeness of dominion, completeness of human wisdom, and, in the ancient idea, the Deity in relation to man or God and man united in one human being, or more, as the case may be. But this chapter itself offers an explanation of the seven heads. In verse 9, it says: "The seven heads are seven mountains on which the woman sitteth." And in verse 15, it says; "The waters which thou sawest where the woman sitteth are peoples and multitudes and nations and tongues;" for in verse 1 it is said that "the great whore sitteth upon many waters." The city of Rome is built upon seven hills; it has always been denominated the "City of the seven hills." The woman, in verse 18, being said to be that great city "that reigneth over the kings of the earth" (which in the time of the delivery of the prophecy it certainly was), and the seven heads the seven hills upon which the woman sitteth, leaves no doubt that the City of Rome is especially meant to be designated. Every object in existence must have a centre, however far it may extend in every or any direction from that centre, and the woman, the city, the Catholic Church, being said to be seated upon the seven hills, shows that the church would be especially

represented at Rome, however far it or its influence might extend over the face of the earth; in short, it shows that the supreme head of that Church would have his seat in Rome. As the old City of Rome ruled over the nations of the earth, so the Church of Rome, represented here as a city, etc., would also exercise dominion over the nations of the earth.

This beast is also characterized as having ten horns, which are not represented to be crowned, as those were which pertained to the beast spoken of in chapter XIII. But in verse 12 they are explained thus: "And the ten horns which thou sawest are ten Kings which have received no Kingdom as yet; but receive power as Kings one hour with the beast." These Kings being represented as having no power as yet means, that as Kings, or rather Kingdoms, they were not in existence at the time the prophecy was delivered; and their receiving power as Kings one hour with the beast indicates that their continuance, when they should arise, would be but short. Speaking historically, the time of the rising of these Kings or Kingdoms would show the time of the rising of the power here symbolized. The number ten would also in general symbolize the complete numbers of nations which would, in any age, yield obedience to the Roman Catholic Church. This beast is also of a scarlet color, and full of names of blasphemy. Purple or scarlet is the color worn by Kings and Emperors, signifying their office, and thus this denotes the beast to represent secular power. But this beast has the peculiarity of being full of names of blasphemy; no particular part of the beast being spoken of as alone displaying these names; at it was said in verse 1, Ch. XIII., that the beast represented there had on his heads names of blasphemy, which indicated that the Emperor, the supreme head of the Church and State, should preeminently of all mankind arrogate to himself and compel divine homage. Other heads, or heads of subordinate departments of government, might arrogate it to themselves to some degree, but to the supreme head alone it was to be given in such a remarkable degree, as to require it to be thus definitely marked in the prophecy; as well as it indicates the doctrines of the Catholic Church represented in that head. Now this scarlet-colored beast being full of names of blasphemy, his scarlet color denoting royalty or the secular power, would clearly indicate that more than one secular power is represented as supporting the Catholic Church. First, it would represent the Pope, or the sovereign of Rome and all the states that pertained to it; and second, it denotes all others sovereigns, whether they be called Kings or Emperors or of other names, and wherever reigning, whether in France, or Germany, or

Britain, or Italy, or Spain, or wherever else there was a sovereign who should profess or support the Roman Catholic religion. And the names of blasphemy represent the doctrines which they would profess, as well as their assuming to themselves divine honors. Some of the sovereigns of these countries have remarkably distinguished themselves in the support of the Church of Rome, especially as represented in the Pope and his institution of spiritual and temporal power, which we shall call the Papacy. It was by Pepin, King of France, that the sovereignty of the Exarchate of Ravenna, in which Rome was included, was given to the Pope in the last half of the eighth century. This donation is said to have been granted in supreme and absolute dominion to the chair of St. Peter by Pepin, but the grant was only verbal; and the world beheld a Christian bishop invested with the prerogatives of a temporal prince; the choice of magistrates, the exercise of justice, the imposition of taxes, and the possession and wealth of the palace of Ravenna, formerly the residence of the Exarchs. The inhabitants of the duchy of Spoleto on the dissolution of the Lombard kingdom through the power ot the French King, declared themselves also the subjects of St. Peter, and completed by this voluntary surrender the circle of the ecclesiastical State. That circle was enlarged to an indefinite extent by the verbal donations of Charlemagne, the son and successor of Pepin, in the same century, who in the first transports of his victory over the Italian Lombards, despoiled himself and the Greek Emperor of the cities and islands which formerly belonged to the Exarchate. But in his cooler moments of reflection he viewed with an eye of jealousy and envy the recent greatness of his ecclesiastical ally. He respectfully eluded the execution of his own and his father's promises; asserted his inalienable right to the whole western Empire which he himself had achieved and organized; and in his life and death numbered Ravenna, as well as Rome, in the list of his metropolitan cities.

On the festival of Christmas, in the last year of the eighth century, Charlemagne arrived in the Church of St. Peter, at Rome, having come thither from his camp at Paderborn in Germany, and to gratify the vanity of the Romans he appeared in the dress of a patrician, rather than in the simple habit of his native country. After the celebration of the Eucharist Pope Leo suddenly placed a precious crown upon his head, and the dome resounded with the acclamations of the people: "Long life and victory to Charles, the most pious Augustus, crowned by God, the great and pacific Emperor of the Romans." The head and body of Charlemagne were then anointed with the consecrated oil; after the example of the Cæsars he was

saluted or adored by the Pontiff; his coronation oath represents a promise to maintain the faith and privileges of the Church; and in his rich offering to the shrine of St. Peter he paid to it the first-fruits. Thus was restored and revived the Western Empire by Charlemagne, which was held with so loose and feeble a hand by his ignoble successors that it was gradually lost; but it was finally restored and appropriated by Otho, King, and afterwards Emperor of Germany, in the year 962, A.D. At the head of a victorious army, Otho passed the Alps, subdued the kingdom of Italy, delivered the Pope from the remaining power of the unwarlike descendants of Charlemagne, and thus fixed the imperial crown of the Western Empire in the name and nation of Germany. From that memorable epoch two maxims of public jurisprudence were introduced by force, and ratified by time. 1st: That the prince who was elected in the German Diet acquired from that moment the subject kingdoms of Italy and Rome. 2d: But that he might not legally assume the titles of Emperor and Augustus till he had received the crown from the hands of the Pope. This last maxim was recognized and acted upon by the Germans for nearly five centuries, until after the coronation, in 1452, of Frederick III. of Austria, from which time his successors have excused themselves from the superfluous honor of receiving the imperial crown from the hands of the Roman Pontiff; and rested their imperial title on the choice of the electors of Germany. Thus, it is seen, and will appear more plainly as we proceed, that the temporal sovereignty of the Pope was rather assumed, or taken for granted by himself, than possessed and exercised by independent right. But, nevertheless, he long exercised in his dominions not only a nominal sovereignty, but the real and substantial powers of a temporal prince.*

But according to the prophecy there was to be much remarkable about this beast, and there is the utmost particularity in explaining, so that no one might mistake him. Verses 8, 10, 11: The angel says to the prophet: "The beast that thou sawest was, and is not; and shall ascend out of the abyss and go into perdition; and they that

* For accepting this gift of temporal sovereignty the ambition and avarice of the Roman Pontiffs have been severely condemned. An humble Christian minister or bishop, it was thought, should have rejected an earthly kingdom which the Gospel did not authorize him to seek, and which it was not easy for him to govern without renouncing the virtues of his ministerial office. Perhaps an honest subject or even a generous enemy of the Eastern Emperor would have been less desirous to participate in the spoils of a barbarian conqueror; and if, as it is said, the Emperor of Constantinople, his lawful master, had entrusted Pope Stephen to solicit in his name from the French prince the restitution of the Exarchate, we cannot absolve the Pope from the reproach of treachery with which he has been branded. To the importunities of the Emperor, however, Pepin piously replied that no human consideration should tempt him to resume the gift which he had conferred on the Roman pontiff for the remission of his sins and the salvation of his soul. Hence we see that the Pope's true position in the scale of secular rulers is that he is the representative of the Exarch.

dwell upon the earth shall wonder whose names were not written in the Book of Life from the foundation of the world, when they behold the beast that was, and is not, and yet is.—And there are seven kings; five are fallen, and one is, the other is not yet come; and when he cometh he must continue a short space. And the beast that was, and is not, even he is the eighth, and is of the seven and goeth into perdition." All this has reference to the governments of Rome at successive stages of its history since its mythical foundation; for back further than the history or the mythology takes him the prophet does not go in search for the different kinds of Roman Government, however many different kinds of rulers there may have existed for Rome, or the city now called Rome, of which we have no record in mythology or history. "The beast that thou sawest was, and is not, and shall ascend out of the abyss and go into perdition." This means that the Roman Imperium did exist, as all the world had reason to know; but at the period to which the prophecy now refers it could not be said properly to exist; and yet that it did at the same time exist in a certain sense, as represented in the Papacy and its supporters. The beast is said to rise out of the abyss, that is, this combination of power was to arise out of an unsettled state of affairs, in which for some time there should be no settled government. Thus it was that this combination of government arose to Rome from the wars and commotions and the wide-spread disorder and desolation which prevailed at Rome and in the western part of the Empire. Rome was twice besieged and finally sacked by the Goths, under Alaric, in the year 410. It was sacked by the Vandals under Genseric, in 455; by Ricimer and Anthemius in 472; and during the reign of Justinian, 527–565, it was taken and retaken five times by the Goths; after which the Exarchs were appointed, who governed the Exarchate of Ravenna, which included Rome, for about two centuries, until the conquest of it by Pepin and Charlemagne, 750–800. The eunuch Narses, the general of the Emperor Justinian, was the first Exarch. He who reads the history of the Roman Empire of those times will understand that the symbol "abyss" (translated in our Bible "bottomless pit") is aptly applied to designate the state of affairs during that age in Rome, Italy, and the west. And in verse 3 of the chapter we are considering (XVII.), the place where this scarlet-colored beast is seen by the prophet to arise is represented as a wilderness, a scene of desolation and devastation far and wide. According to the historian the campagna of Rome was at this time reduced to the state of "a dreary wilderness, in which the land is barren, the waters are impure, and the air infectious." * But this

* Millman's Gibbon's Rome, ch. XLV.

beast was to go into perdition. Perdition literally means "losing," and the going into perdition here means that this power, after it had attained its greatest height, should gradually decay and wane till its final consummation. This we see to have been fulfilled to a large extent. The first great falling oft from this system was in the Protestant Reformation; then we see it in the destruction and humiliation of those secular powers that so long supported the Papacy, as France and Austria, and in the loss of the civil power by the Pope himself lately. The first great blow which the Papacy received was from the defection of the Reformers in the sixteenth century, by which it lost such an immense power and prestige; and since that time it has been continually losing directly or indirectly in consequence of the power of those reformed nations; and it will continue to lose, as according to the prophecy, until its power is reduced to an almost imperceptible influence in the world; then will the Roman Catholic religion be almost or altogether extinguished. The representation shows that this combination of power should wax and wane much as the moon does. "And they that dwell on the earth shall wonder whose names were not written in the Book of Life from the foundation of the world, when they behold the beast that was, and is not, and yet is." This is the same reference as that in ch. XIII. 3, and here it can clearly be seen what the object was which attracted the attention of mankind away (or behind) from the great Roman Emperor in his palace at Constantinople: it was a combination of his principal subjects, ecclesiastical as well as civil, of which the most wondered at was the bishop ot Rome, who now had defected from him and set up a government of their own within his old dominions. But only those whose names were not written in the Book of Life (the Lamb's Book of Life), from the foundation of the world wondered at or worshipped this beast. God's children, the true and humble followers of the Lamb of God, do not wonder at or admire such objects, are not attracted by them. Knowing that what makes such objects wonderful in the eyes of the world is derived from the world's craft and wickedness and vanity.

The pilgrimages which were performed to the tombs of the apostles Peter and Paul; the miracles which were wrought at these tombs, and at the tombs of the saints and martyrs in the seven-hilled city; as well as the great influence and power the Pope had acquired from the sacred and secular hierarchy of the Empire, were the principal causes of this great wonder at, or admiration of the beast. Kings and Emperors, and all who felt the burden of their sins, and possessed a sufficient amount of money to defray the expenses of their journey and their absolution, flocked to the holy City, as well to be

relieved of their sins by the Holy Father as to see the great wonders which were there exhibited. According to a vague tradition, two Jewish teachers, a fisherman and a tent-maker, had formerly been executed in the circus of Nero, and at the end of five centuries, their genuine or fictitious relics were worshipped as the Palladium of Papal Christian Rome. The pilgrims of the East and West resorted to the holy threshold; but the shrines of the apostles were guarded by miracles and invisible terrors; and it was not without apprehension that the pious Catholic approached the object of his worship. It was dangerous to behold, it was fatal to touch the relics of the saints; and those who, from the purest motives, presumed to disturb the repose of the sanctuary were affrighted by visions or punished with sudden death. The extravagant request of an Empress who wished to deprive the Romans of their sacred treasure, the head of St. Paul, was rejected with the deepest abhorrence; and the Pope asserted, probably with truth, that a linen which had been sanctified in the neighborhood of his body, or the filings of his chain, which it was sometimes easy and sometimes impossible to obtain, possessed an equal degree of miraculous virtue.

For a short time only the feeble successors of Charlemagne received their crown from the hands of the Pope; and the German Emperors, as mentioned before, for a period of about five hundred years (962–1452), received their crown in that way, and at the same time the title of Kings of Rome and Italy. They always, however, in coming to be crowned, appeared with an army before the gates of Rome, and received the imperial crown from the Pope, not as a voluntary gift on his part, but as that which belonged to them by right, which right they were prepared to assert by force, as well as that of their kingship of Rome and Italy. It was on account of his ghostly or ecclesiastical power and influence, rather than on account of his civil power, that the bishop of Rome was so much wondered at. He was also wondered at on account of this, that in his capacity of a civil ruler, he appeared the real and actual representative of the old kings and Cæsars of Rome; although he was in reality merely dependent upon the secular princes who were the real kings of Rome and Italy, and he the real representative of the Exarch of Ravenna, the lieutenant of the Eastern Emperor. From about the latter part of the fifteenth, or the beginning of the sixteenth century, the Pope's temporal sovereignty was more independent than at any previous period, though the Pope never could at any time be called an absolutely independent temporal prince. "And there were seven kings; five are fallen, and one is, and the other is not yet come; and when he cometh he must continue a short space." These seven kings, as

we have before mentioned, refer to the seven successive forms of government which Rome had as far back as history or mythology takes us. These were in the order of their succession: Kings, Consuls, Decemvirs, Military Tribunes with Consular power, Dictators, Emperors, the Exarchs of Ravenna, whose government was to continue a short space (it did continue nearly two centuries); and finally the combination of power, represented in the Papacy and the civil rulers of the West, was the eighth, but principally the Pope. But this eighth ruler was to be of the seven; that is, the Pope, as the instrument of the Western princes, in his capacity of a civil ruler, represented the Exarch of Ravenna, who in his time was invested by the Emperor with the civil and ecclesiastical power; and thus the Pope was really one of the seven rulers of Rome; but in his capacity of ecclesiastical head of the Catholic Church, a ghostly ruler, he was different from all that had preceded him, and from the Exarch, and thus constituted an eighth. These seven systems of government which we have enumerated were the actual systems of government which ruled Rome as far as extant literary records inform us; but there is no good reason why the number seven may not denote the complete number of systems of government which ruled Rome down to the rule of the Germanic-Papal combination.

But as to the ten horns which were to receive power as kings, one hour with the beast; verses 13, 14, 16, 17 say: "These have one mind, and shall give their power and strength unto the beast. These shall make war with the Lamb, and the Lamb shall overcome them; for he is Lord of lords and King of kings; and they that are with him are called, and chosen, and faithful.—And the ten horns which thou sawest upon the beast, these shall hate the whore, and make her desolate and naked, and shall eat her flesh and burn her with fire. For God hath put in their hearts to fulfil his will, and to agree and give their kingdom unto the beast, until the words of God shall be fulfilled." As to the time when these kingdoms arose which were symbolized by the ten horns, it appears, according to Mede and others, that in the year following that in which Rome was sacked by the Vandals and Italy was overrun by the barbarians, which would be the year 456, ten barbaric kingdoms arose in the western part of the Empire; and if this be so it serves as a time-mark to show when this power began sensibly to appear. There were many considerations which influenced these barbarians to profess the doctrines of the Catholic Church, and accept the bishop of Rome as their spiritual father. Mosheim says: "The incursions and triumphs of the barbarians were so far from being prejudicial to the rising dominions of the Roman Pontiff, that they rather contributed to its advancement.

For the kings who penetrated into the Empire were only solicitous about the methods of giving a sufficient degree of stability to their respective governments. And when they perceived the subjection of the multitude to the bishops, and the dependence of the bishops upon the Roman Pontiff, they immediately resolved to reconcile this ghostly ruler to their interests by loading him with benefits and honors of various kinds." * He also observes that "the declining power and supine indolence of the Emperors left the Pope's authority without control." It will, of course, be remembered that there existed frequently disputes between the bishops and clergy of the Roman world, and that their referring their cases on some occasions to the arbitration of the bishop of Rome, as to the highest tribunal, had given that bishop an acknowledged superiority over all the sacerdotal orders. Now, there is no doubt that the little horn mentioned in Daniel VII. 8, 20, 21, &c., as springing up among the ten horns, in which were eyes like the eyes of man, and a mouth speaking great things, symbolized this combination of power which we are considering in this chapter. But whether the ten horns mentioned in Daniel as being on the head of the beast, and among which, and in the stead of three of which, the little horn springs up, or whether the ten horns, mentioned in Rev. XIII. 1, as being on the seven heads of the beast, mean the same as the ten horns upon the seven heads of the beast, of Rev. XVII., which we are now considering, is quite a different thing. In the first place, the representation in Rev. XIII. means the same as that in Dan. VII., only with this difference, that the one in Daniel symbolizes the whole Roman Empire, Pagan as well as Christian; while that in Revelation XIII. symbolizes the Christian Roman Empire, beginning with Constantine. Either of these representations, therefore, symbolizes the whole Roman Empire. But it is seen that the combination we are now considering is only a constituent part of the Roman Empire, as symbolized by the little horn, before which *rising*, three fell, as in Dan. VII.; and by the wounded head healed or *revived*, as in Rev. XIII. 3. In either case it is only a part of the whole, or a power arising out of part of the Roman Empire, and perhaps, extending beyond its limits in some direction, say, towards the north of Europe, that is meant. While, therefore, the ten horns of the beast of Dan. VII. and of Rev. XIII. symbolize all the nations that would, at any time, be included in the Roman Empire, the ten horns appertaining to this beast of ch. XVII. have a particular reference to certain nations which should at some time yield obedience tc the bishop of Rome, in his character of head

* Mosheim's Eccles. History Cent. V.

of the Roman Catholic Church. And their continuing to support the Papacy for only the short space of time, represented symbolically by an hour, might merely prove the characteristic fickleness and freedom of thought of the barbarian nations which arose on the desolations of Italy and the West, and which, professing obedience to the religion of the Roman Pontiff and to himself, were continually warring with the Emperor of the East, and with each other, and for the city of Rome during a great part of the time which intervened between their rise in the middle of the fifth century, and the conquest of Italy and Rome by Pepin and Charlemagne in the latter half of the eighth century. So many times was Rome sacked and pillaged by the Goths and Vandals, and others, during the four centuries which intervened between Honorius and Charlemagne, that, represented symbolically as a whorish woman, it might be said, they "ate her flesh, and burned her with fire."

But it being said in the prophecy that these ten kings, after having given their support to the beast during the space of a symbolic hour, they would turn round and maltreat the whore so effectually, it appears plain that the Germanic Confederation is meant, or the princes of the Germanic Diet, who afterwards would see fit to lead the van of the Protestant Reformation. It is very certain there is a particular reference to the nations in which the Reformation took place; at first, for the space of six centuries, supporting so ardently the Church of Rome, and fighting her battles in propagating her doctrines by the civil sword; gratifying the vanity of the Roman Pontiff by condescending to receive their imperial crown from his hands: and then turning round and opposing with all their might the Holy Mother Church, and the holy father with the same stoutness with which they had ever obeyed and supported them. "These have one mind and shall give their power and strength unto the beast," which is excellently represented in the unity of Catholic and orthodox mind which pervaded that august body of Catholic princes assembled in the Germanic Diet, supporting, for six hundred years, the power of the Church and the Pope. Three conspicuous nations fell before the Papacy during its gradual rise, which may correspond to the three horns which fell before the little horn, as according to Dan. VII. These were the Goths, Vandals, and Lombards, the last-named of which were fast accomplishing the conquest of the Exarchate of Ravenna when they were overcome by Pepin, King of France, who handed over the Exarchate to the Pope by way of donation. The power of these three nations over Rome and Italy, or, at least, over the Exarchate, was so effectually eradicated after the conquests of Pepin and Charlemagne, as to have been fairly des-

ignated in Dan. VII. by the three horns being plucked up by the roots.* "These," that is, the horns, "shall make war with the Lamb, and the Lamb shall overcome them; for he is Lord of Lords, and King of Kings, and they that are with him are called and chosen and faithful." Happy they who are overcome by the Spirit of the Lamb of God. Happy they who deny themselves their perverse passions, their carnal lusts and their wicked inclinations and dispositions, and cultivate in themselves the meek and gentle, and peaceable spirit by which the Lamb is characterized. Thus being, thus doing, this is the Lamb of God. For many centuries did the princes and potentates of Christendom wage warfare in behalf of the Roman Catholic Church, until at length the day of the Reformation dawned and some light shone into men's hearts, some sparks of freedom kindled in their souls; and some threw off the shackles of their superstition and slavery, and resolved to become more free. It is men's right and privilege to become perfect in liberty; where the spirit of truth is, there is perfect liberty; where the spirit of superstition, of idolatry of any kind, or of man-worship prevails, there is the basest, the most burdensome, and the most abject slavery. Stand fast, therefore, and assert your freedom in the spirit of truth and godliness. "For God hath put in their hearts, to fulfil his will, and to agree and give their kingdom unto the beast until the words of God shall be fulfilled." God, by which term here we mean the infinite Deity, put in men's hearts to do just as they will choose; for it happens that where the Spirit of the Lord is there is liberty. Men are free moral agents: if they willingly believe lies and falsehood, and act accordingly, they do it of their own free will, and the devil assists them mightily in their course to perfection in wickedness. If they choose the good, and holy, and true, which they can do with infinitely greater benefit to themselves, by practising self-denial and cultivating all the character of godliness, God then assists them mightily to their perfection in godliness, God never incites men to do evil; the devil never to what is good. And, to sum it all up, men may learn that the Deity leaves them to be free agents, and that they are themselves the authors of their own sin and wickedness; and that by choosing and doing the good, they are the authors of their godliness, which God will delight in assisting them to perfect. The Deity may be said to put in men's hearts whatever disposition there may happen to be in them, for no disposition can exist

* Bishop Newton makes the three horns which fell before the little horn to be the Exarchate of Ravenna, the Kingdom of the Lombards, and the State of Rome. The application we have made is the correct one, for it is very easily seen that the Pope stood for the Exarch, and he, jointly with the western potentates, governed the State of Rome.

there without him, and he knows from the beginning all things which will take place. But the true God is not the author of such wickedness as these Catholic princes and nations were guilty of that supported and favored the Papacy, a fact which will become more patent as we proceed. But God knew and could foretell what these men and nations would do, and how all things would result. The devil, the spirit of evil, is not wont to foretell much that is true; falsehood is characteristic of him; he is a liar, and the father of it. It happens in the history of religion, as well as in civil history, and in that of individual life, that the evil is mingled with the good in human character and action, and the one may be set over against the other, so as in some cases to balance each other, in some cases the one or the other preponderating. Will not human beings, therefore, begin to cultivate the spirit of godliness, developing all the graces of the true Christian character: at the same time that they cultivate firm and unwavering faith in the power and benevolence of the Deity, and the utmost confidence in His goodness, which greatly assists one not only in being good and doing good, but in all the labors, the circumstances, and the vicissitudes of life?

In this symbolical woman there is also an especial reference to the false and blasphemous practices of knighthood in the ages of chivalry, when there was such an unwarranted degree of respect paid to the female sex of the higher classes as to amount to a species of worship, and was thus dishonoring to the Deity and blasphemous in his eyes.* This is practised also in our own age to an unwarrantable and reprehensible degree; and God does not look upon such practices with allowance: nor will he be pleased to have his honor prostituted to human beings or to any visible things. Females of a considerate and a godly character will always be contented with a fair degree of attention and respect, nor can they ever conscientiously before God accept or countenance anything more. They should themselves become the first reformers of the false and reprehensible manners of the age in this respect, and not employ their arts in making men even more idolatrous, and they will thus become the benefactors of mankind, the restorers of true virtue among men, and the vindicators of the honors of their God; and for their pains they will reap contentment of spirit and an eternal meed of happiness, which the vanities of the world can never afford them. The Church of Rome, and certain other branches of the Church Catholic, have always made great use, and unwarrantable use, of the female agency in advancing their cause and supporting and upbuilding their

* See Hallam's "Middle Ages."

Churches. They should know that it is high time to give up the worship of woman, which has long prevailed widely, and to substitute or restore the worship of the true God, the infinite and invisible Deity alone, in its stead. Verse 6, Ch. XVII: "And I saw the woman drunken with the blood of the saints and with the blood of the martyrs of Jesus; and when I saw her I wondered with great admiration." This represents the Church of Rome, here symbolized by an intoxicated harlot, as gloated with the blood of all those who during the long period of her ascendency she, through her agencies and supporters, caused to be put to death and persecuted variously for non-conformity with her principles or doctrines, for having any principles or doctrines, than those which she saw fit to communicate, or because she suspected that they had or cultivated principles or doctrines or cherished opinions which she did not approve. These persecutions and slaughters were carried on by that system of Church and State wherever it was established and wherever its influence and power extended for a series of centuries, as will be partially understood from what we have shown in Part First of the work and the few illustrations which follow.*

We shall here give a few more examples from history of the cruel proceedings of the Catholic Church.

In the eleventh century Europe was greatly infested with heretics. They were reputed Manichæans, and spread through many countries. In Italy they were called Paterini or Catheri, that is, the Pure. In France they were called Albigenses, Bulgarians and other names, sometimes after the names of the countries in which they resided. Their dangerous doctrine was first discovered by a certain priest called Heribert, and a Norman nobleman; upon which Robert, King of France, assembled a Council at Orleans to devise methods for reclaiming those harmless people, not surely from the error of their ways; but they, remaining obstinate, were at length condemned to be burned alive. Their enemies acknowledged the sincerity of their piety, and confessed that they were blackened by accusations which were manifestly false. But they were deemed unsound in their speculations concerning God, the Trinity, and the human soul. Such also were the heretics of the succeeding ages, called Brethren and Sisters of the Free Spirit, that is, free from obedience to the flesh, from the law of sin and death; the Massalians and Euchites, that is,

* It will be noticed that in treating this part of our subject, when we express any opinion or make any comment of our own it is in the most moderate language we can consistently use. History is a stubborn thing; we allow it to speak for itself in showing the fulfilment of the prophecies, and we quote from (all things considered) the most reliable historians of these periods.

people who pray: the Bogomilans, such as call for mercy. In some countries the same class of people were called Beghards. Catholic writers have tried to enumerate the errors of these heretics, but they were considered too numerous; the fact is their faith and practice were contrary to the Catholic establishment in everything. Of course it would be endless to enumerate their supposed errors concerning baptism, the Eucharist, the sanctity of churches, altars, incense, consecrated oil, bells, bishops, funeral rites, marriages, indulgences, and the wood of the true cross.

Basilius was a reputed Manichæan and founder of the sect called Bogomilans. This aged and venerable man, being treacherously induced to unfold his doctrine to the Emperor Alexius, was condemned as a heretic, and barbarously burnt at Constantinople; which was but the beginning of sorrows to his harmless followers.

Peter de Bruys was another who, in the twelfth century, troubled the Catholic peace and supplied the heresy-hunters with fresh labor and blood. They say "he attempted to remove the superstitions that disfigured the beautiful simplicity of the Gospel." * He would baptize only such as were come to a full use of their reason. He rejected the notion of the real body and blood of Christ in the Eucharist, the virtue of the wooden cross, and other instruments of superstition. He was followed by great numbers, and after a laborious ministry of twenty years, was burned at St. Giles, in the year 1130, by an enraged populace, instigated by the clergy. The next Catholic disturbance came from Henry, from whom came the Henricians. He travelled from place to place, declaiming, it is said, with the greatest vehemence and fervor against the vices of the clergy; at length being seized by a certain bishop and condemned before Pope Eugenius, he was committed to a close prison in the year 1143, where he soon after ended his days, leaving a train of heretics behind him in France to supply the ravenous priesthood with blood and carnage. In Brabant similar commotions were excited by the illiterate Tanquelmus, "who drew after him a numerous sect." Some of his enemies speak the worst things of him: others say these infamous charges are "absolutely incredible, that these blasphemies were falsely charged upon him by a vindictive priesthood." They say he treated with contempt the external worship of God and the sacraments, held clandestine meetings, and, like other heretics, inveighed against the clergy; for which "he was assassinated by an ecclesiastic in a cruel manner."

Arnold, a man of extensive learning and remarkable austerity,

* Eccles. Hist., Cent. XII.

excited new troubles in Italy. By his instigations, it is said, the people even insulted the persons of the clergy in a disorderly manner. He was, however, seized in the year 1155, publicly crucified, and afterwards burned to ashes; leaving behind him a great number of disciples to perplex the priesthood about their overgrown opulence, Papal revenue, and ungodly authority. Spain had long been teeming with heresy, even from the time that Mark, the disciple of Hierax, went into that kingdom. Sometimes these were called Manichæans, sometimes Priscillianists; and they flourished here under the last name during a period of more than eight centuries.

Robinson says: "This body of people knew no crime of heresy, (among themselves:) they supposed very justly that persecution was oppression, that killing for the faith was murder. If ecclesiastics had never created a virtue called orthodoxy, the world would never have heard of a crime called heresy." * Councils never could suppress heresy in Spain; but the Inquisition did. A great number of heretics resided in Spain until they were exterminated by that iniquitous institution. After this the valleys among the Pyrenean mountains between France and Spain became the sequestered habitation of heretics. To these retreats they fled from the destructive arm of persecution, and as they were driven from thence they spread through France, Germany, and other provinces of Europe, formed societies and were called by different names, but were more generally called Albigenses and Waldenses.

The Manichæans, Priscillianists, and all who sprung from the same original stock, agreed in one article of faith, and that was baptism. They all held that the Catholic corporation was not a Church of Christ, and they, therefore re-baptized those that had been baptized in that community before they admitted them into their societies; for this reason their most common name of distinction was Anabaptists. But by whatever names they might be called in different countries, all such as renounced the Papal superstition, and placed religion in the practice of virtue, were the common objects of persecution to the Catholic priesthood.

Mosheim, † in speaking of the Church in the tenth century, says: "The clergy were, for the most part, a worthless set of men, equally enslaved to sensuality and superstition, and capable of the most abominable and flagitious deeds. The pretended chiefs and rulers of the universal Church indulged themselves in the commission of the most odious crimes, and abandoned themselves to the lawless impulse of the most licentious passions without reluctance or remorse,

---

* Eccles. Researches. † Eccles. Hist., Cent. X.

and whose spiritual Empire was such a diversified scene of iniquity and violence as never was exhibited under any of those temporal tyrants who have been the scourges of mankind." Robinson, speaking of the supreme rulers of the Catholic Church, the bishops of Rome in particular, says: "Of the sinners it may truly be affirmed that they were sinners of size; for it would be difficult to mention a crime which they did not commit."* Mosheim says again: "The history of the Roman Pontiffs that lived in this (tenth) century, is a history of so many monsters, and not of men, and exhibits a horrible series of the most flagitious and complicated crimes, as all writers unanimously confess."

This is the description and the character of that spiritual Empire, that Christian Church, most impiously so called. It is the character of that monstrous beast and the abominable woman that sat upon many waters, ruling the nations, with whom the kings of the earth committed fornication, and with whose wine of fornication, the inhabitants of the earth were made drunk. She was intoxicated with the blood of the saints, and with the blood of the martyrs of Jesus.

Yet, all non-conformists who would not be made drunk with the wine of the filthiness of her fornication, must needs be called "heretics" the only fit objects of revenge and destruction.† In the progress of this power "all places of worship were taken from heretics, and they punished for holding conventicles, though they held them in forests, and dens and caves of the earth." But in this spiritual Empire the ruling party, from the beginning, "declared themselves the only Christians, for they believed the Trinity; and all the rest were heretics, bound over to present and eternal perdition." "Nothwithstanding," says Robinson, "thousands set all penalties at defiance, and lived and died as their own understandings and conscience commanded them, in the practice of heresy and schism." ‡

"In the year 1210, these non-conformists had become so numerous and so odious that Ugo, or Hugh, the old bishop of Ferrara, obtained an edict of the Western Emperor, Otho IV., for the suppression of them. Five years after, Pope Innocent III. held a council at the Lateran, and denounced anathemas against heretics of all descriptions, and against the lords and their bailiffs who suffered them to reside on their estates." Men of continual employment were now in quest of heretics; bound by an oath to seek for them in towns, houses, cellars, woods, caves, and fields, and to purge the provinces of the enemies of the Catholic faith. Besides, in every city a council

* Eccles. Researches. † Eccles. Hist. ‡ Eccles. Researches.

of inquisition was instituted, consisting of one priest and three laymen. As early as the year 1233, that infamous court, called the Inquisition, had a permanent establishment in Spain and France, which, in its progress, intensified to the utmost degree, the crimson color of the bloody beast, and the infernal rabble by whom it was executed. In the kingdom of Castile and Aragon, there were eighteen Inquisitorial courts, having each of them its counsellors, termed *Apostolic Inquisitors*, its secretaries, serjeants, and other officers. And beside these, there were twenty thousand *familiars* dispersed throughout the kingdom who acted as spies and informers, and were employed to apprehend all suspected persons, and to commit them to trial to the prisons which belonged to the Inquisition." "By these familiars, persons were seized on bare suspicion, and in contradiction to the common rules of law they were subjected to the torture, tried and condemned by the Inquisitors, without being confronted by their accusers, or with the witnesses on whose evidence they were condemned." "The punishments were more or less dreadful, according to the caprice and humor of the judges. The unhappy victims were either strangled, or committed to the flames, or loaded with chains and shut up in dungeons during life. Their effects were confiscated, and their families stigmatized with infamy." "Authors of undoubted credit affirm, and without the least exaggeration, that millions of persons have been ruined by this horrible court. Moors were banished a million at a time; six or eight hundred thousand Jews were driven away at once, and their immense riches seized by their accusers, and dissipated among their persecutors." * "Heretics of all kinds, and of various denominations, were imprisoned and burnt, or fled into other countries. "This horrible court," says Robinson, "is styled by a monstrous abuse of words: The Holy and Apostolic Court of Inquisition." Newton says: "It is enough to make the blood run cold to read of the horrid murders and devastations of this time; how many of these poor innocent Christians (i.e. heretics), were sacrificed to the blind fury and malice of their enemies! It is computed by Mede, from good authorities, that in France alone were slain a million." †

"Against the Waldenses," says Thuanus, a Popish historian, "when exquisite punishments availed little, and the evil was exasperated by the remedy which had been unseasonably applied, and their number increased daily, at length complete armies were raised; and a war of no less weight than what our people had before waged against the Saracens, was decreed against them; the event of which was that they were rather slain, put to flight, spoiled everywhere of

* Eccles. Researches. † Newton on Prophecy: Diss. XXV.

their goods and dignities and dispersed here and there, than that, convinced of their error, they repented." The Waldenses and Albigenses being persecuted in their own country, fled into other countries, some into Germany, and some into Britain In Germany, they grew and multiplied so fast, notwithstanding the rage and fury of crusaders and inquisitors, that at the beginning of the (fourteenth) century, it is computed that there were eighty thousand of them in Bohemia, Austria, and the neighboring territories." Yet comparatively but few escaped the rage and fury of the bloody inquisitors. "From the first institution of the Jesuits to the year 1580, that is, in a little more than thirty years, nine hundred thousand reputed heretics were slain. In the Netherlands alone, the duke of Alva boasted that within a few years, he had despatched to the amount of thirty-six thousand souls, and those all by the hand of the common executioner." * In the space of scarce thirty years, the Inquisition destroyed, by various kinds of tortures, an hundred and fifty thousand Christians (i. e., heretics, such as Catholics generally called fanatics or persons disordered in their brains). Then how many millions may we suppose it destroyed in the course of over two hundred and fifty years from its first institution?

It is, therefore, a just remark of Newton that: "If Rome Pagan hath slain her thousands of innocent Christians, Rome Christian (rather anti-Christian) hath slain her ten thousands. For not to mention other outrageous slaughters and barbarities, the crusades against the Waldenses and Albigenses, the murders committed by the duke of Alva in the Netherlands, the massacres in France and Ireland will probably amount to ten times the number of the Christians slain in all the ten persecutions of the Roman Emperors put together." † But is it not astonishing beyond measure that any one should yet be so blind and so silly as to imagine that the pure Gospel of Christ could have been conveyed by such means? "That kind of religion," says Robinson, "which the Catholic always propagated ought to be considered as it really is, not merely a religion but a species of government, including in it a set of tyrannical maxims injurious to the lives, liberties, and properties of citizens in a free state, and all tending to render the state dependent on a faction called the Church, governed from age to age by a succession of priests." ‡ And such, we may remark, was that kind of priesthood by which the Catholic or Orthodox Church was organized and ruled from the beginning, according to their degree of power and influence. Simon the Sorcerer § bewitched the people, giving out

* Eccles. Researches. † Newton on Prophecy: Diss. XXV ‡ Eccles. Researches.
§ Acts, ch. VIII.

that himself was some *great one;* when therefore, under his lucrative motives, he professed to be a Christian, he was *Antichrist* in the seed. Diotrephes * was a Catholic priest, Antichrist in the blade; he loved to have the pre-eminence; he could not really persecute, but he prated with malicious words against the *heretics,* John and his brethren, and cast them out of the Church. Councils are but a larger growth from the same diabolical root; they are rulers without dominion, Inquisitors without an Inquisition, and may be justly called Antichrist in the ear. Synods of three or four bishops framing creeds or canons for conscience, and attaching to a breach of them ideas of guilt, differ from the Inquisition only as a spark of fire differs from a city in a blaze." † Thus from prating they proceed to solemn anathemas, which happily cannot yet effect the ruin of the dissenter Great ones, however, go on to great words, and as their numbers and authority increase they grasp the effectual power by faith, and form an Inquisition in their dire decrees. Their language used to be when they could proceed no farther: "If any person, king, nobleman, prelate, priest, monk, or any of inferior rank, native or foreigner, shall at any time deny this creed or disobey these canons, may he be numbered with Judas, Dathan, and Abiram; may all his limbs be broken; may his eyes be plucked out; may his entrails be torn out of him; may he be smitten with the leprosy and other diseases from the crown of the head to the sole of the foot; and may he suffer the pain of eternal damnation with the devil and his angels." When the inquisitors burnt their thirty, sixty, ninety heretics at a time; stained the walls of their torture room with human blood; while they clothed the wretched sufferers with habits and caps on which were represented devils and flames,—what did they more than finish and color a picture of which the most ancient and sanctimonious Catholic synods had given them a sketch?—a picture, when finished, so dreadful that even the artists shuddered at the sight of their own work! An Inquisitor calls it: *Horrendum et tremendum Spectaculum!* A horrid and dreadful spectacle! "But liberal men," says Robinson, "have hardly words to express their abhorrence of it."

Near the beginning of the eleventh century, Boleslaus, king of Poland, entered into a bloody war with the Prussians, and "obtained by the force of penal laws and of a victorious army what Adalbert, bishop of Prague, could not effect by exhortation and argument. He dragooned this savage people into the Church." ‡

"Waldemar I., King of Denmark, unsheathed his sword in the twelfth century for the propagation and advancement of Christianity;

---

* III. John, verses 9–10. † Eccles. Researches. ‡ Eccles. Hist., Century XI.

and wherever his arms were successful, there he pulled down the temples and images of the gods, destroyed their altars, laid waste their sacred groves, and substituted in their place the Christian worship, which deserved to be propagated by better means than the sword." * These are the words of Mosheim, and he might with more propriety have said that their bloody religion deserved to be called by some other name than that of Christianity. But he continues his narrative in the same Catholic strain: "The island of Rugen submitted to the victorious arms of Waldemar in A. D. 1168, and its fierce and savage inhabitants, who were in reality no more than a band of robbers and pirates, were obliged, by that prince, to hear the instructions of the pious and learned doctors that followed his army, and to receive the Christian worship."

"The Finlanders received the Gospel in the same manner; they were also a fierce and savage people. After many bloody battles they were totally defeated by Eric IX., and were commanded to embrace the religion of the conqueror, which the greatest part of them did, though with the utmost reluctance. The founder and ruler of this new Church (of savage robbers and pirates) was Henri, Archbishop of Upsal, who accompanied the victorious monarch in that bloody campaign." But Henry, for his severe treatment of his new converts, was by them assassinated; and thus procured the honors of saintship and martyrdom from Pope Adrian IV. Can the heathen mythology furnish greater monsters than Dr. Mosheim's bloody Christianity; his pious, learned, tyrannical doctors; his fierce, and savage Christians; and his lordly archbishops, saints and martyrs? But let us pursue the track of these Catholic missionaries a little farther, and see what Gospel, or good news, they spread among the Livonians. Mosheim in his usual style says: "The propagation of the Gospel among the Livonians was attended with much difficulty and also with horrible scenes of cruelty and bloodshed." "Mainerd, a regular canon of St. Augustin (having attempted the conversion of that savage people without success), addressed himself to the Roman Pontiff, Urbain III., who consecrated him bishop to the Livonians, and at the same time declared a *holy war* against this obstinate people."

"This war, which was at first carried on against the inhabitants of the province of Esthonia, was continued with still greater vigor and rendered more universal by Berthold, abbot of Lucca, who left his monastery to share the labors and laurels of Mainerd, whom he accordingly succeeded in the see of Livonia. The new bishop marched

* Eccles. Hist., Century XII.

into that province at the head of a powerful army which he had raised in Saxony, preached the Gospel sword in hand, and proved its truth by blows instead of arguments." * Beyond all dispute he proved, by his unmerciful blows, that his religion and his Gospel were a brutal imposition upon the reason and rights of men. "Albert, canon of Bremen, became the third bishop of Livonia, and followed with a barbarous enthusiasm the same military methods of conversion. He entered Livonia in the year 1198, with a fresh body of troops drawn out of Saxony; and encamping at Riga, instituted there, at the direction of the Roman Pontiff, Innocent III., the military order of the knights sword-bearers, who were commissioned to dragoon the Livonians into the profession of Christianity, and to oblige them by force of arms to receive the benefits of baptism."

New legions were sent from Germany to second the efforts and add to the efficacy of the mission of these booted apostles; and they, together with the knights sword-bearers, so cruelly oppressed, slaughtered and tormented this wretched people that, exhausted at length and unable to stand any longer firm against the arm of persecution, they abandoned the statues of the heathen deities, and substituted in their place the images of the saints. Mosheim at length closes his account of the wonderful progress of the Catholic Gospel among the Livonians in his usual murky manner.

"But while they received the blessings of the Gospel, they were at the same time deprived of all earthly comforts; for their lands and possessions were taken from them with the most odious circumstances of cruelty and violence, and the knights and bishops divided the spoil." Such curses of Anti-Christ's kingdom, retailed out by Orthodox doctors and divines, have driven many men of honest principles to discard the name of Christianity altogether; and justly they might discard a religion that claimed even a distant relation to such a bloody, oppressive, and persecuting hierarchy. But the votaries of such a religion had no relation to the followers of Christ. The true and genuine Gospel of Christ never was preached with sword in hand, but with the power and energy of the Holy Spirit, which is a spirit of peace, long-suffering, meekness and mercy. And when the Gospel was preached by the true ambassadors of Christ, every human being to whom it came had full liberty of choice; and if they embraced the truth it was upon their own inward conviction and their estimation of its value, without any compulsion from any other quarter. Neither did the promulgators of true Christianity ever enact laws to bind those that did not believe; nor did they ever pros

* Eccles. Hist., Century XII.

ecute or practise war or bloodshed to promote their cause, or increase their number; nor compel any one to receive their testimony by any force, violence, or cruelty whatever. This is the truth and cannot be denied. But what shall be said when such booted apostles and lordly bishops with their sword-bearers, drunk with ambition and lust for dominion, are pushing on in every direction to extend the limits of their lawless empire, and spreading calamity and distress wherever they go?

Can any real friend of God or man, look on with indifference or try to amuse a distressed world with flowery tales about a divine Gospel, a benign religion, and a celestial light? Or, must not reason and conscience speak out and testify that all such evangelizing is the cursed deception of anti-Christian tyrants? Such awful scenes of merciless tyranny under the mask of a Christian profession are the most noted achievements of Catholic Emperors, Popes, bishops, and monks during the long reign of Anti-Christ. Many volumes would not contain a full account of all the arts of deception, the pious frauds, the bloody wars, and horrid massacres, the secret wickednesses and open crimes which have been practised in this kingdom under the sacred names of God and Christ, and under a cloak of pious motives and holy ends. But happily such monsters of iniquity are to be clearly known by their fruits, their own historians being witnesses. To say no more, their holy wars with the infidel Saracens, as they called them, were sufficient to demonstrate to all ages that it was not the Gospel nor the spirit of Christ which they possessed, but a spirit and Gospel diametrically opposite.

By the influence of Pope and Emperor, of bishops, dukes and monks and all the ecclesiastical powers, an army was raised in the eleventh century to force their Gospel into Palestine. Eight hundred thousand men, each with a consecrated cross upon his right shoulder, set out for Constantinople in the year 1096. This was but the beginning of that Catholic army which is described as follows by Mosheim: "This army was a motley assemblage of monks, prostitutes, artists, laborers, lazy tradesmen, merchants, boys, girls, slaves, malefactors, and profligate debauchees, who were animated solely by the prospect of spoil and plunder and hoped to make their fortunes by this holy campaign."* Dr. Maclaine, the translator of Mosheim, states from the best authority that "the first division of this prodigious army committed the most abominable enormities in the countries through which they passed, and that there was no

* Eccles. Hist., Century XI.

kind of insolence, injustice, impurity, barbarity and violence of which they were not guilty."

"Nothing perhaps in the annals of history can equal the flagitious deeds of this infernal rabble." "We pass in silence," says Mosheim, "the various enormities that were occasioned by these crusades, the murders, rapes and robberies of the most infernal nature that were everywhere committed with impunity by those holy soldiers of God and of Christ, as they were impiously called." And in this manner did the beast wax exceeding great; so that at the sight of his army and horsemen, which were like the sand upon the sea shore for multitude, it might justly have been said: Who is able to make war with him?

The habitable and most populous parts of the globe were the scenes of his ravaging power; and all whose habitation was upon the earth, or who contended for its honors, pleasures and preferments were obliged to worship him, whose iniquitous names and characters never were written in the Book of the innocent Life of the Lamb.

They worshiped the Bishop of Rome, not only by enriching him with their substance, but by conferring upon him such names and titles as Our Lord God the Pope, Another God upon earth, King of Kings and Lord of Lords, the same is the Dominion of God and the Pope, Lord of the Universe, Arbiter of the Fate of Kingdoms and Empires, and Supreme ruler over the Kings and Princes of the earth.* Agreeable to those blasphemous titles his votaries maintain that "the power of the Pope is greater than all created power, and extends itself to things celestial, terrestrial and infernal;" † "that he is not only bishop of Rome, but of the whole world, and is constituted judge in the place of God which he fills as the vicegerent of the Most High, ‡ that he doeth whatsoever he listeth, even things unlawful, and is more than God. He as God, sitteth in the temple of God showing himself that he is God. And he sitteth there as God, especially at his inauguration, when he sitteth upon the high altar in St. Peter's Church, and maketh the table of the Lord his footstool, and in that position receiveth adoration. Such blasphemies are not only allowed but are even encouraged and rewarded in the writers of the Church of Rome: and they are not only the extravagance of private writers but are the language even of public decretals and acts of the coun-

* See Eccles. Hist., Centuries XI., XII., XIII., XIV., XV., XVI.

† His. Redemption, p. 432. Note K.

‡ Dissertation on Prophecy, Vol. 2, p. 71, 72. Diss. XXII.

cils," so says Bishop Newton. Thus was the bishop of Rome, not only blasphemously worshipped, but he magnified himself against the prince of princes, saying that neither princes nor bishops, civil governors nor ecclesiastical rulers have any lawful power in Church or State but what they derive from him; that both the kingdoms and the souls of kings were under his dominion, and that he had power to bind them both in heaven and upon earth.*

Such was the combination of mutual blasphemy and wickedness which centred in the ecclesiastical head of this Catholic kingdom; and such was that power that was given him not of God, but of all the ranks and orders of men that existed in his dominions. They gave their power to establish the dignity, honor, greatness, and glory of fallen man, both in a temporal and spiritual view; in all which they expected to have a share. It was no wonder that such a hypocritical, cruel and bloody hierarchy of State and Church should be represented by the spirit of prophecy under the figure of a scarlet-colored beast full of names of blasphemy, on which was seated a woman arrayed in purple, and decked with gold and precious stones and pearls, having a golden cup in her hand full of abominations, and upon her forehead a name written: Mystery, Babylon the great, the mother of Harlots and abominations of the earth.

As to the time when this power began conspicuously to appear, there has been much research among the learned. It is seen from the prophecy in Daniel VII., 8, that the little horn sprung up at first insensibly, and then gradually among the ten horns, until finally three of these gave it place by their being plucked up by the roots before it. These three horns were not only overcome by the little horn, but they were eradicated. The conquests of the religion of Rome will not satisfy to explain for the eradicating of these horns; it applies to conquests of the secular power and radical and permanent conquests at that. Now we know that the ecclesiastical pre-eminence of the bishop of Rome began, even within the times of the primitive Church, to appear above all the other bishops of the Catholic Church. This prestige remained to the Roman pontiff with a gradual increase from the time of Constantine to that of Charlemagne; though during a great part of that interval of 450 years, the city of Rome was trampled under foot, and Italy and the West desolated by contending armies. The first quarter of the seventh century may be taken as the time from which to date the temporal power of the bishop of Rome. True, the sovereignty was not conceded to him until the latter part of the eighth century by the secu-

* Eccles. Hist., Centuries XI.-XVI

lar power; but the circumstances of the times had made him in effect the temporal sovereign of Rome; and from and after the time of Pope Gregory the Great, may be dated the temporal sovereignty of the Roman bishop. This Gregory was one of the most renowned of the Popes of Rome, and he is, perhaps, notwithstanding some difference of opinion among the learned concerning it, the last one of their own order to whom they have given the title of saint. His character, uniting in itself a singular mixture of simplicity, superstition, and cruelty, seems to have suited him for his station and for the temper of the times. As soon as he had received the degree of deacon, he was sent to reside at the Court of Constantinople as the nuncio or minister of the Apostolic See, and he boldly assumed, in the name of St. Peter, a tone of independent dignity which would have been criminal and dangerous in the most illustrious lay subject of the Empire. He returned to Rome with a large increase of reputation, and after for a short time practising the virtues of a monk, he was dragged from the cloister to the Papal throne by the unanimous consent of the clergy and the people. He alone resisted or pretended to resist his own elevation; and his humble petition to the Emperor Maurice (he who, with his family, was killed by Phocas,) that he would be pleased to reject the choice of the Romans, served only to exalt his character in the eyes of the Emperor and the public. When the mandate was proclaimed, Gregory solicited the aid of some merchants to convey him in a basket beyond the gates of Rome, and modestly concealed himself some days among the woods and mountains till his retreat was discovered, as it is said, by a celestial light. In his rival the patriarch of Constantinople he condemned the anti-Christian title of universal bishop, which the successor of St. Peter was too haughty to concede, and too feeble to assume; and Gregory's ecclesiastical jurisdiction was confined to the triple character of Bishop of Rome, Primate of Italy, and Apostle of the West; and the bishops of Italy and the adjacent islands acknowledge the bishop of Rome as their special Metropolitan. But Gregory made successful missionary inroads into Spain, Gaul and Britain; and it has been said that the conquest of the last-named country reflects less honor on Cæsar than on Gregory the Great. Instead of six legions he despatched forty monks with Augustin at their head for that distant island, and affected to lament the austere duties which prevented him from taking part in their spiritual warfare. In less than two years, he could announce to the Patriarch of Alexandria that his missionaries had baptised the king of Kent, with ten thousand of his Anglo-Saxon subjects, and that, like the missionaries of the primitive Church, they were armed only with spiritual and supernatural powers. But how

ever this may be, it seems certain, that this orthodox conquest was not obtained without blood; for Robinson, in his Ecclesiastical Researches, asserts that he and his missionary monk Augustin. were the cause of over two thousand Anglo-Saxons having been slaughtered. The heathen temples of Britain, the Pope permitted to be turned into Christian Churches, and the new converts were permitted to sacrifice in honor of the saints and martyrs, instead of their ancient deities, on the days that had been observed in honor of the latter.

The course which Gregory pursued towards the Emperor Phocas, after his usurpation and murder of the Emperor Maurice and his family in such a diabolical manner, may tend to justify the belief that Gregory was capable of such atrocities. Phocas, after his murderous proceedings, was peaceably acknowledged in the provinces of the East and West. His image, with that of his wife Leontina, was exposed in the Vatican at Rome to the veneration of the people and clergy, and afterwards deposited in the palace of the Cæsars between those of Constantine and Theodosius. As a subject and a Christian it might have been the duty of Gregory to acquiesce in the established government until a better could be, or was substituted; but the joyful applause with which, in his epistle to the new Emperor, he salutes the fortune of the assassin, has sullied with an indelible disgrace, the character of the saint. The successor of St. Peter might have inculcated with a respectable firmness the blood-guiltiness of the Emperor, and the necessity of his repentance; he contents himself with celebrating the deliverance of the people, and the fall of the oppressor; he rejoices that the pious and benignant Phocas had been raised to the imperial throne; he prays that his hands may be strengthened against all his enemies; and he expresses a fervent wish, which perhaps he intended for a prophecy, that after a long and triumphant reign he might be transported from a temporal to an eternal kingdom. We have already shown the proceedings of Phocas with respect to Maurice which seemed so pleasing, in Gregory's opinion, both to heaven and earth; and, according to the most impartial historians, Phocas does not appear less hateful in the exercise than in the acquisition of power. They delineate his portrait as that of a ferocious monster.

His credulity or prudence always disposed Gregory to confirm the truths of his religion by the evidence of ghosts, miracles, and resurrections; and the Catholic Church of succeeding ages has freely paid to his saintship the same tribute for virtue as he freely granted to the virtue of the saints of his own and the preceding gen-

erations. The historian Gibbon, in speaking of the Popes, especially of Gregory the Great, says: "Their temporal power insensibly arose from the calamities of the times; and the Roman bishops who have deluged Europe and Asia with blood were compelled to reign as the ministers of charity and peace. The Church of Rome was endowed with ample revenues in Italy, Sicily, and the most distant provinces; and her agents, who were commonly sub-deacons, had acquired a civil and even criminal jurisdiction over their tenants and husbandmen. The successor of St. Peter administered his patrimony with the temper of a vigilant and moderate landlord; and the epistles of Gregory are filled with salutary instructions to abstain from doubtful or vexatious lawsuits, to preserve the integrity of weights and measures, to grant every seasonable delay, and to reduce the capitation of the slaves of the glebe, who purchased the right of marriage by the payment of an ordinary fine. The rent of the produce of those estates was transported to the mouth of the Tiber at the risk and expense of the Pope: in the use of wealth, he acted like a faithful steward of the church and the poor, and liberally supplied to their wants the inexhaustible resources of abstinence and order. The voluminous accounts of his receipts and disbursements was kept above three hundred years in the Lateran as the model of Christian economy. On the four great festivals he divided their quarterly allowance to the clergy, to his domestics, to the monasteries, the churches, the places of burial, the almshouses, the hospitals of Rome, and the rest of the diocese. On the first day of every month he distributed to the poor, according to the season, their stated portion of corn, wine, cheese, vegetables, oil, fish, fresh provisions, clothes and money; and his treasurers were continually summoned to satisfy, in his name, the extraordinary demands of indigence and merit. The instant distress of the sick and helpless, of strangers and pilgrims, was relieved by the bounty of each day and of every hour; nor would the pontiff indulge himself in a frugal repast till he had sent the dishes from his own table to some objects deserving of his compassion. The misery of the times had reduced the nobles and matrons of Rome to accept, without a blush, the benevolence of the church: three thousand virgins received their food and raiment from the hand of their benefactor; and many bishops of Italy escaped from the barbarians to the hospitable threshold of the Vatican. Gregory might justly be styled the Father of his country; and such was the extreme sensibility of his conscience, that for the death of a beggar who had perished in the streets, he interdicted himself for several days from the exercise of sacerdotal functions.

The misfortunes of Rome involved the apostolic pastor in the

business of peace and war; and it might be doubtful to himself whether piety or ambition prompted him to supply the place of his absent sovereign. Gregory awakened the Emperor from a long slumber; exposed the guilt or incapacity of the Exarch, and his inferior ministers, and complained that the veterans were withdrawn from Rome for the defence of Spoleto; encouraged the Italians to guard their cities and altars; and condescended in the crisis of danger, to name the tribunes, and to direct the operations of the provincial troops. But the martial spirit of the Pope was checked by the scruples of humanity and religion; the imposition of tribute, though it was employed in the Italian war, he freely condemned as odious and oppressive; whilst he protected, against the imperial edicts, the pious cowardice of the soldiers who deserted a military for a monastic life. If we may credit his own declaration, it would have been easy for Gregory to have exterminated the Lombards by their domestic factions, without leaving a king, a duke, or a count to save that unfortunate nation from the vengeance of their foes. As a Christian bishop, he preferred the salutary offices of peace; his mediation appeased the tumult of arms; but he was too conscious of the arts of the Greeks (i. e., the Eastern Romans) and the passions of the Lombards to engage his sacred promise for the observance of the truce. Disappointed in the hope of a general and lasting treaty he presumed to save his country without the consent of the Emperor or the Exarch. The sword of the enemy was suspended over Rome; it was averted by the mild eloquence and seasonable gifts of the Pontiff who commanded the respect of heretics and barbarians. The merits of Gregory were treated by the Byzantine Court with reproach and insult; but in the attachment of a grateful people he found the purest reward of a citizen, and the best right of a sovereign." *

The time of Gregory, then, or a little before, appears to be about the first beginning of the exercise of temporal sovereignty by the popes, which sovereignty arose principally from the circumstance of Rome being separated from Ravenna, the seat of the Exarch, by hostile lands. The pontificate of Gregory the Great was from 590 to 604. The secular sovereignty was taken away from the pope in 1870 by the king of Italy. And reckoning back 1260 years, the limits of the prophecy, at the rate of thirty days for a month or 360 days for a year, it would place the beginning of this power about this time or a little before, as we must consider that 1260 years of 360 days each are not equal to the same number of ordinary years in length. This period of 1260 days or years refers not only to the

* Milman's Gibbon's Rome, ch. XLV.

great Roman empire of which we have treated, having Constantinople as the seat of government, but to this Ecclesiastico-civil Roman empire of which we are now treating; and as for the new system arising from the Protestant Reformation, of which we have yet to treat, we shall leave its duration to be proved by the event.

After the so-called restoration of the Western Empire by Charlemagne and the German emperors, the latter in the election of the popes continued to exercise the powers which had previously been exercised by the Roman emperors or their representatives the Exarchs, and by the Gothic Kings of Italy; and the importance of this prerogative increased with the temporal estate and spiritual jurisdiction of the Roman Church. In the aristocracy of this church the principal members of the clergy still formed a senate to assist the administration and to supply the vacancies of the bishop. Each of the parishes of Rome, which were 28 altogether, was governed by a presbyter or cardinal-priest, a title which, though of humble origin, afterwards aspired to emulate the purple of kings. Their number was enlarged by the association of the seven deacons of the most considerable hospitals, the seven palatine judges of the Lateran, and some dignitaries of the Church. The ecclesiastical senate was directed by the seven cardinal bishops of the Roman province, who were less occupied in their diocese outside the city than by their weekly service in the Lateran and their superior share in the honors and authority of the apostolic see. On the death of the pope the bishops recommended a successor to the suffrage of the college of cardinals, and their choice was ratified or rejected by the applause or clamor of the Roman people. But the election was imperfect, nor could the pontiff be legally consecrated till the emperor, the advocate of the church, had signified his approbation and consent. The royal commissioner examined on the spot the form and freedom of the proceedings; nor was it till after a previous scrutiny into the qualifications of the candidates, that he accepted an oath of fidelity, and confirmed to the new pope the donations which had successively enriched the patrimony of St. Peter. In the frequent schisms the rival claims were submitted to the sentence of the emperor; and in a synod of bishops he undertook to judge, to condemn and to punish the crimes of a guilty pontiff. Otho the First imposed a treaty on the senate and people who engaged to prefer the candidate most acceptable to his majesty; his successors anticipated and prevented their choice; they bestowed the see of Rome on their chancellors and preceptors; and whatever might be the merit of a Frank or German, his name on the list of the pontiffs sufficiently attests the interposition of a foreign power. The competitor who found himself ex-

cluded by the cardinals sometimes appealed to the passions or avarice of the multitude. The city was stained with blood, and the most powerful Roman senators held the see of St. Peter in a long and disgraceful servitude. The popes of the ninth and tenth centuries were insulted, imprisoned and murdered by their tyrants; and such was their indigence after the loss and usurpation of the Ecclesiastical patrimony that, in many cases, they could neither support the state of a prince, nor exercise the charity of a priest. The influence of two prostitutes, sisters, Marioza and Theodora, who lived during this period, was founded on their wealth and beauty, their political and amorous intrigues. The most attentive of their lovers were honored with the popedom, and their reign may have suggested to other ages the story of a female pope. The son and grandson of Marioza were seated in the chair of St. Peter, and it was at the age of nineteen that the first of these became head of the Roman Church. The youth and manhood of the young pontiff were of a similar complexion, and the pilgrims from different nations could bear witness to the charges which were urged against him in a Roman synod and in the presence of the emperor, Otho the Great. As John XI.* had renounced the dress and decencies of his profession and had taken up the profession of a soldier, in his military character, which he sustained at the same time with that of pontiff, he may not perhaps be dishonored by the wine which he drank, the blood which he spilt, the conflagrations which he kindled, or his licentious pursuits of gaming and hunting. His open simony might have been caused by distress; and his blasphemous invocations of Jupiter and Venus might possibly not have been serious. But with all this we read that this worthy son of Marioza lived in public adultery with the matrons of Rome; that the Lateran was turned into a school for prostitution, and that his rapes of virgins and widows had deterred the female pilgrims from visiting the shrine of St. Peter, lest in their act of devotion they should be violated by his successor.

While the attention of the Emperors was directed to more alluring objects or while they were occupied with the defence of their hereditary dominions, Rome occasionally experienced intestine discords from the ambition of usurpers. Amidst the ruins of Italy the famous Marioza invited a usurper, Hugh, King of Burgundy, to assume the character of her third husband, and he was introduced by her faction into the mole of Hadrian, or castle of St. Angelo, which

* There is indeed some confusion in the history of the popes of this period. Muratori has discovered John XI. to have been the son of Alberic, the husband of Marioza.

commands the principal bridge and entrance of Rome. Alberic, her son by the first marriage, was compelled to attend at the wedding; but his ungraceful and reluctant service was chastised by a blow from his new father. The blow was productive of a revolution. "Romans!" exclaimed the youth, "once you were masters of the world, and these Burgundians the most abject of your slaves. They now reign, those voracious and brutal savages, and my injury is the commencement of your servitude." The alarm bell rung to arms in every quarter of the city; the Burgundians retreated with precipitation; Marioza was imprisoned by her victorious son, and his brother, pope John the eleventh, was reduced to the exercise of his spiritual functions. With the title of prince, Alberic possessed over twenty years the government of Rome; and he is said to have gratified the people by restoring the office of the consuls and tribunes.

His son and heir assumed with the pontificate, the name of John XII. He, like his predecessor, was provoked by the Lombards to seek a deliverer for the Church and republic. Otho II. performed these services on his coming to receive the imperial crown. The festival of his coronation was disturbed by the secret conflict of prerogative and freedom, and the Emperor commanded his guards not to stir from his side lest he should be assaulted and murdered at the foot of the altar. Before he repassed the Alps, he chastised the rebels and John XII. for his ingratitude. The pope was degraded in a synod; the præfect was mounted on an ass, whipped through the city and imprisoned; thirteen of the most guilty were hanged; others were mutilated or banished; and this severe process the Emperor justified by a reference to the ancient laws of Theodosius and Justinian. The voice of fame has accused Otho for a perfidious and bloody act, the massacre of the senators whom he had invited to his table under the fair semblance of hospitality and friendship; but the authority on which we have this is suspected. In the reign of his son, Otho III., Rome made a bold attempt to shake off the German yoke, and the consul Crescentius was the leader of the Republicans. From the condition of a subject and an exile he twice rose to the command of the city, oppressed, expelled, and created the popes, and formed a conspiracy for restoring the authority of the eastern Roman Emperors. In the fortress of St. Angelo he maintained an obstinate siege till he was betrayed by a promise of safety; his body was suspended on a gibbet, and his head was exposed on the battlement of the castle. By a turn of fortune, Otho III., after separating his troops, was besieged three days in his palace without food; and a disgraceful escape saved him from the fury of the Romans. The senator Ptolemy was the leader of the people, and the widow of Crescentius

enjoyed the pleasure or the repute of revenging her husband by a poison which she administered to her imperial lover. It is said to have been the design of this Otho to erect his throne in Italy, and to revive the institutions of the Roman monarchy; but this design he or his successors never accomplished, probably owing to their continued preference for the royal seat of their ancestors, and to the imminent personal danger to which they would be subject from strangers and Romans.

After a long series of scandals, the see of St. Peter was reformed and exalted by Pope Gregory VII., 1050–1100. This ambitious monk devoted his life to the execution of two projects: I. To fix in the college of cardinals the freedom and independence of the election of the Pope, and to abolish forever the right of interference on the part of the Emperors and the Roman people. II. To bestow or resume the Western empire as a fief or benefice of the Church, and to extend the temporal dominion of the successor of St. Peter over the kings and kingdoms of the earth. After a contest of fifty years, the first of these designs was accomplished, by the firm support of the ecclesiastical order whose liberty was connected with that of their chief. But the accomplishment of the second design, though it was attended with some practical success, was vigorously resisted by the secular power, and finally extinguished by the progress of reason.

The successors of Charlemagne and the Othos were chosen beyond the Rhine, in a national diet; but these princes were content with the humble title of Kings of Germany and Italy till they had crossed the Alps to receive their imperial crown from the hands of their spiritual Father upon the banks of the Tiber. At some distance from the city their approach was saluted by a long procession of the clergy and people with palms and crosses; the royal oath to maintain the liberties of Rome was thrice repeated, at the bridge, at the gate, and on the stairs of the Vatican; and in their distribution of customary donative, the emperor feebly imitated the munificence of the first Cæsars. In the church of St. Peter the coronation was performed by the Pope, and the public consent was declared in the acclamations: "Long life and victory to our Lord the Pope! Long life and victory to our Lord the Emperor! Long life and victory to the Roman and Teutonic armies!" The names of Cæsar and Augustus, the laws of Constantine and Justinian, the example of Charlemagne and Otho, established the supreme dominion of the emperors; their title and image was engraved on the papal coins, and their jurisdiction over Rome was marked by the sword of justice which they delivered to the prefect of the city. The order of the

coronation was, however, often disturbed by the seditious clamors of the Romans, who encountered their sovereign as a foreign invader: his departure was always speedy and often shameful: and in his absence, sometimes during a long reign, his authority was often insulted, and his name perhaps forgotten. As we have before remarked, Frederick III. was the last German emperor who presented himself at Rome to receive the imperial crown, which he did in 1452, the year before Constantinople was taken by the Turks. After this the civil authority of the Popes became more independently exercised, and the Romans were freed from the immediate presence of their German lords, though they frequently afterwards had need of their assistance to quell domestic disturbances, and protect them against foreign foes.

Of Rome's two sovereigns, the emperor reigned by the right of conquest; but the authority of the Vicar of Christ was founded on the soft though more solid basis of public opinion and habit; and he began to exercise over the Romans a similar influence to that which he did over the nations of Europe, when by his thunders from the Vatican he created, judged and deposed the rulers of the earth; nor did the proudest of Rome's sons feel themselves disgraced by submitting to the rule of a priest whose foot was kissed by kings.

Gregory VII., who did so much to establish the Papal Sovereignty and to extend its influence, was in his old age driven from Rome and died in exile. Thirty-six of his successors maintained a very unequal contest with the Romans; their age and dignity were often violated; the streets of Rome and the churches in the solemn rites of religion exhibited on many occasions a scene of blood and murder. At length in the year 1309, the Popes, having abandoned Rome, took up their residence at Avignon, in France, where they remained over seventy years. When, after the expiration of this period, they effected a return, they still occasionally encountered some opposition in the city. Gregory XI., survived his return about fourteen months. After his death the conclave elected Urban VI. But after he had been installed into office, adored, invested, and crowned in the customary manner, and his supremacy was acknowledged at Rome, Avignon, and in the Latin world, the cardinals reversed their decision, excommunicated him, and elected a new Pope, Robert of Geneva, called Clement VII., in his place. The Romans were dissatisfied with the last election on account of the foreign birth of Clement, and rose *en masse* against the cardinals, the majority of whom were French. Thirty thousand rebels surrounded the conclave: "Death, or an Italian Pope" was their unanimous cry. Some preparations were made for burning the cardinals if they should not

comply with their wishes; and had they chosen another foreigner for Pope, it is probable they would never have escaped alive from the Vatican. The features of the tyrant could now be discovered in Urban, who could walk in his garden and recite his breviary, while he heard from an adjacent chamber, six cardinals groaning on the rack. The cardinals left the matter as it was, and the merits of their double choice made a subject which was long agitated in the catholic schools. Thus a schism was created which destroyed the peace of Europe for forty years. From the banks of the Tiber and the Rhone the hostile pontiffs encountered each other with the pen and the sword: the civil and ecclesiastical orders of society were disturbed, and the Romans had their full share of the troubles which they might be said to have authorized. By the avocations of the schism; by foreign arms and popular tumults, Urban VI. and his three immediate successors were often compelled to interrupt their residence in the Vatican. The opposite parties at Rome still exercised their deadly feuds; the Vicar of Christ, who had levied a military force, chastised the rebels with the gibbet, the sword, and the dagger, and in a friendly conference eleven deputies of the people were perfidiously murdered and cast into the streets. In the year 1434, the people rose in arms against the Pope: elected seven men to govern the republic, and a constable of the capitol; imprisoned the Pope's nephew: besieged himself in the palace, and shot volleys of arrows into his bark as he escaped in the habit of a monk down the Tiber. But he possessed in his castle of Angelo a garrison, which remained faithful to him, and a train of artillery; their batteries incessantly thundered on the city, and a bullet dexterously pointed broke down the barricade of the bridge, and scattered with a single shot the heroes of the republic. A rebellion of five months exhausted their constancy; the troops of St. Peter again occupied the capitol; the demagogues departed to their homes; the most guilty were executed or exiled, and the Pope's legate at the head of two thousand foot and four thousand horse was hailed as the father of the city. From this time the Popes maintained an army in the citadel which they exercised in compelling peace and obedience; and before the year 1500 they had acquired over Rome a more absolute dominion than they had ever possessed before, which they have continued to exercise till within our time.

Their temporal claims were readily deduced from the fabulous or genuine donations of the darker ages, but, to relate with particularity the steps by which they came to their final settlement would engage us too far in the transactions of Italy and Europe. The crimes of Pope Alexander VI., the martial operations of Julius II.,

and the statesmanlike policy of Leo X., have been adorned by the pens of the ablest historians of the times. In the first period of their conquests till the expedition of Charles VIII., the Popes might successfully wrestle with adjacent princes and states whose military force was equal or inferior to their own. But as soon as the monarchs of France, and Germany, and Spain, contended with arms for the dominion of Italy they supplied with art their want of strength, and concealed in a labyrinth of wars and treaties their aspiring views. The nice balance of the Vatican was often subverted by the soldiers of the north and west, united under the standard of Charles V; the fluctuating policy of Clement VII. exposed his person and dominions to the conqueror, and Rome was abandoned during seven months to a lawless army more cruel and rapacious than the Goths and Vandals. After this severe lesson, together with that which they were being taught by the Protestant reformers, the Popes contracted their ambition which was almost satisfied, resumed the character of a common parent, and abstained from all offensive hostilities except in a hasty quarrel when the vicar of Christ and the Turkish Sultan were armed at the same time against the Kingdom of Naples.

Through a forgery of the Vatican and the ignorance of the times it was long and universally believed in Europe that Constantine had invested the Popes with the civil dominion of Rome. In the beginning of the twelfth century, the truth and validity of this donation was disputed by a Sabine monastery. But in the fifteenth century, with the revival of learning, this fictitious deed was completely exposed, especially by the pen of Laurentius Valla, a learned Roman; and such is the silent and irresistible progress of reason, that before the end of the next age, that fable, so long believed, was rejected by the contempt of historians and poets, and the modest censure of the advocates of the Roman Church; and even the Popes themselves have indulged a smile at the credulity of the vulgar on account of it. Fraud is often the resource of weakness and cunning, and on their arrival at the Eternal City with their armies, the strong, though ignorant barbarian kings and emperors had often been entangled in the net of sacerdotal policy. The Vatican and Lateran were an arsenal which, according to the occasion, have produced or concealed a various collection of false or genuine, of corrupt or spurious or suspicious acts, as they tended to promote the interests of the Roman Church. Before the end of the eighth century some scribe attached to St. Peter, thought to be the notorious Isodore,* composed the decretals and the donation of Constantine, the two

* Cardinal Baronius strangely enough suspected it to be a forgery of the Eastern Romans.

magic pillars of the ecclesiastical and civil power of the Popes. This remarkable donation was first introduced to the world in an Epistle of Adrian I. to Charlemagne, in which he exhorts that monarch to imitate the liberality and revive the name of the great Constantine. According to the legend Constantine was healed of the leprosy and purified in the waters of baptism * by St. Sylvester, bishop of Rome; and never was a physician more abundantly recompensed. His royal patron withdrew from the seat and patrimony of St. Peter, declared his resolution of founding a new capital in the East, and resigned to the Popes the free and independent sovereignty of Rome, Italy and the West. So deep was the ignorance and credulity of the dark ages that this most absurd of fables was received with equal reverence both in the Eastern and Western provinces of the Roman world. The Emperors and the Romans were incapable of discerning a forgery which subverted their rights and freedom, and the fabulous origin was lost in the substantial effects. The name of Dominus or Lord was inscribed on the coin of the bishop, their title was acknowledged by the acclamations and oaths of allegiance of their citizens, and with the free or reluctant consent of the German emperors they had long exercised a sovereign or subordinate jurisdiction over the city and the patrimony of St. Peter.

Doubtless the remembrance of the deception, whether or not any of their forefathers had been deceived by it, intensified the hatred of the German potentates against the Church of Rome at the era of the Reformation. But it appears pretty evident the Western rulers were never much influenced by the supposed act of donation or the decretals of Constantine; for they always recognized themselves as the kings of Rome and Italy; and perhaps it has been remarked there was always particular care taken that Rome and Italy should have a sovereign besides the Pope. But, on the other hand, while these secular rulers regarded themselves as the kings of Rome and Italy, the Popes never appear to have assumed that title, never assumed the crown of the Western Empire; but satisfied themselves with their bishop's tiara of three crowns, which, while it denoted their headship of the Catholic Church, also indicated their triple character of sovereigns of heaven, earth, and hell. Moreover, the Pope never represented any of the supreme secular rulers of Rome; he did not represent the kings, the consuls, the decemvirs, the military tribunes with consular power, the dictators, or the emperors; but he represented the Exarch of Ravenna, the lieutenant of the

* Our readers will remember that Constantine was not baptized till just before his death when that rite was administered to him by Eusebius, bishop of Nicomedia.

Emperor, who was of the seventh class of rulers by which Rome was governed; it was the Exarchate of Ravenna that the Pope acquired from Pepin, and he was, therefore, in his civil capacity, the Exarch, one of that class of rulers; but in his ecclesiastical character he was different from him, and thus constituted an eighth class of rulers for Rome.

During the era of the Crusades, A. D., 1100–1300, Rome was revered by the Western provincials as the Metropolis of the world, as the throne of the Pope and the Emperor, who from the Eternal City derived their title, their honors, and their right to exercise temporal dominion. The Pope was regarded as the Father or head of the Catholic Church; under the influence of the successive Popes the conquest of Germany and Britain and all the other barbarous nations of Europe had been gained or compelled to the Catholic faith. The secular power of the Eastern Roman Empire, the Roman Empire proper, yielded to the Crusaders in their capture of Constantinople, and their reign there for fifty-seven years may be significant of the universal conquest which this power would attain in the Empire, as denoted by the representation in the prophecy of the power which we are considering, and which had its centre of influence at Rome. The heart and arm of this power, or the German Empire, never belonged to the Roman Empire proper, but attained what it did attain of it by conquest. The Emperors and the Popes were at the head of the nations of Catholic Christendom; the secular force of this symbolic beast was essentially foreign to the old Roman Empire, formerly governed from Rome, then from Constantinople; and the Popes, after acquiring such unbounded influence as they did, used the sword of the barbarians in propagating their doctrines, and in accomplishing the objects of their ambition. It is readily seen, therefore, from this whole discourse that this symbolic beast of Rev. XVII, though having seven heads and ten horns as the one represented in ch. XIII had, signifies a different combination of power from that, though partly contained in it; a power in which the German element was essentially the secular force; for the Franks who overcame the Roman province of Gaul, and gave their support to this power were also of Germanic origin; but the great type of this power is in the Germanic nations, with the Emperor at their head, in combination with the bishop of Rome governing Roman Catholic Christendom civilly and religiously. This was essentially a new power which arose and flourished upon the ruins of part of the Roman Empire proper and far beyond its limits; the beast *full* of blasphemous names representing the secular power with its profession and support of its doctrines and its assumption and

arrogance of divine honors. And the symbolic representation of the beast and the woman represents that new combination of civil and religious power which arose in Western Europe, and which may be said to have had its centre of influence at Rome. And the Pope, being always the bishop of Rome, and finally the representative of the Exarch, and thus of the Roman Emperor proper, this system, as to its centre at least, is properly included within that represented in chapter XIII, 1–11, which we have considered under the head of the Roman Empire, civil and religious.

An Explanation of chapter xiii Revelation from verse 11 to the end of the chapter, showing its fulfilment in the Protestant reformed systems of church and state, especially those of Germany and Britain, with references throughout to other parts of the book of Revelation, and explanation.

We shall now return to part second of chapter XIII of Revelation, from verse 11 to the end of the chapter. This eleventh verse begins a different representation from that which we are given in the preceding part of the chapter. There, beginning with verse 1, we have represented a symbolic wild beast, having seven heads and ten horns, &c., coming up out of the sea, which we have shown to represent the whole catholic Roman empire, religious and civil. But here, beginning with verse 11, we have represented a wild beast (*θηρίον*) coming up out of the earth, having two horns like a lamb and speaking as a dragon. There we were given a particular description of the appearance of the wild beast. Here we are given no further description of the appearance of this wild beast,—not being even told what he appeared like,—but that he had two horns like a lamb, and that he speaks as a dragon. Verse 11. "And I beheld another beast coming up out of the earth, and he had two horns like a lamb, and he spake as a dragon." This beast has the characteristic of being wild as the other two which we have passed in review. We are not given anything to know of his appearance as to size or otherwise; but we are told that his two horns were like those of a lamb (*ἀρνίου*), not that this symbolic beast itself was like a lamb. As the lamb's horns are not wont to be used harmfully, and as a horn in prophecy may denote a religious as well as a secular power (see Dan. VII.; Rev. V. 6) and as these two horns are attached to the same beast, we infer they denote two branches of the same Catholic Christian Church. And their being attached to a beast which in other respects did not resemble a lamb (for he is a wild beast and

speaks as a dragon) we infer them to have represented lamb's horns only in appearance, and, therefore, to denote secular powers also, as by the spirit of the beast we know that he would use them harmfully. In the case of the first beast which came up out of the sea we have shown it to represent the Christian Roman empire beginning with Constantine and arising out of an unsettled state of affairs both of the political and religious world. But in the case of this second beast we shall show it to represent the reformed nations, or the nations in which the reformation from the Romish religion began to take place in the early part of the sixteenth century. The wild beast being seen to come up out of the earth indicates that these powers would arise, that is, that these nations would become independent of the old religion of the Roman empire at a time when affairs, both political and religious, but especially religious affairs, were in a quiet state. This was especially so with respect to religious affairs in Europe at the time when the Reformation commenced. All the European nations were then in profound submission to the Papacy; the Pope was then in effect prince of the kings of Europe. "While the Roman pontiff," says Mosheim, "slumbered in security at the head of the church, and saw nothing throughout the vast extent of his dominions but tranquillity and submission, an obscure and inconsiderable person arose on a sudden, in the year 1517, and laid the foundation of this long expected change by opposing, with undaunted resolution, his single force to the torrent of papal ambition and despotism." This extraordinary person was Martin Luther, a monk of the order of St. Augustin, who, as appears from what follows, never considered himself as having separated from the Catholic Church: "he separated himself from the Church of Rome which considers the Pope as infallible, and not from the Church considered in a more extensive sense, for he submitted to the decision of the Catholic Church, when that decision should be given in a general council lawfully assembled." * The protest, therefore, of Luther and his followers did not respect the church, but her head; the Lutheran is strictly a branch of the Catholic Church and the principal question to be decided between Luther and the Pope must have been, who shall be head? or, in other words, which of us shall be the greatest? This will appear more clear from what we shall adduce hereafter. Luther or his co-reformers did not lay claim to any extraordinary divine illumination or heavenly call; for says Dr. Mosheim: "they were conducted only by the suggestion of their natural sagacity." And Dr. Maclaine, speaking of the first reformers,

* Eccles. Hist., Century XVI.

Luther, Calvin, and their contemporary reformers, says; "They pretended not to be called to the work they undertook by visions or internal illuminations and impulses; they never attempted to work miracles, nor pleaded a divine commission; they taught no new religion, nor laid claim to any extraordinary vocation." For many centuries before the Reformation, the power of the Pope and the horrid crimes and corruptions of the Catholic Church had been increasing until it became replete with tyranny and all manner of wickedness, while every attempt previously made to reform those open and scandalous abuses proved almost ineffectual.* Out of such a state of things the Reformation commenced in the year 1517, by the debates of Martin Luther with John Tetzel relative to the sale of indulgences and to the Pope's power with regard to the remission of sins. These debates and contentions were carried on first between Luther and the Pope's deputies, then between Luther and the Pope himself; and they resulted, first in the suspension, and finally in the expulsion of Luther from the Church of Rome by Pope Leo X. in the year 1521. But he still belonged and professed to belong to the orthodox Catholic Church established by Constantine, and from which the Papists, in common with the Protestants, have sprung.

The breach having been made, it now remained to be decided which should have the pre-eminence, Luther or the Pope; for each had his claim, the one under a pretence of reforming the corruptions of the Church, and reclaiming its members from the power and abuse of a preposterous hierarchy; and the other, under a pretence of holding, by a lawful succession, the keys of St. Peter, as Christ's vicar on earth. But Luther being now expelled from "the good old mother Church," as Mosheim calls the Church of Rome, instead of being intimidated by the bulls and edicts which she hurled against him, "they led him to form the project of founding a church upon principles entirely opposite to those of Rome." And he established in this Church a system of doctrines and ecclesiastical discipline agreeable to his own "natural sagacity." The true Christians of primitive times manifested the Spirit of God; love was the bond of their union. Whatever they suffered from cruel persecution, they sought for no civil power to defend their cause at the expense of the blood of their fellow-creatures. Luther's cause, however, evidently stood in need of the assistance of the secular power to prevent it from failing; and the project which he formed of founding a church on principles opposite to those of Rome, secured the assistance of the secular princes,

* Witness the doings of the Inquisition, &c., &c., which have been narrated before

especially the Elector John of Saxony, successor to the Elector Frederick, who had encouraged him originally in his proceedings for reform. "The Elector John," says Mosheim, "convinced of the truth of Luther's doctrine, and persuaded that it must lose ground and be soon suppressed if the despotic authority of the Roman Pontiff remained undisputed and entire, without hesitation or delay assumed to himself that supremacy in ecclesiastical matters which is the natural right of every lawful sovereign." It is not disputed but that this sovereign had as good a right to become the supreme head of the Catholic Church as Constantine, or even the Pope; but a supremacy over the Christian Church, or any part of it, the Gospel did not authorise him to assume. Like the kings of the Gentiles, he might exercise lordship, create churches and priesthoods, or reform part of the old Church and defend it by the sword; and, when he had done all, he could not prove that he had from the Gospel either precept or example for his conduct. Now, they had a supreme head of their own, a secular prince, to perform the functions of ghostly supremacy in the Church. And who, now, could tell the difference between setting up a religious test of supremacy at Constantinople, at Rome, or in Saxony? If there was any difference it was in power only, and not in quality; for all blended the spirit of violence and the despotism of the civil sword with their pretended Gospel of Jesus.

Likewise the reformed supremacies, their coalition of civil and ecclesiastical powers, as the Christian emperors by their murderous edicts, very soon discovered the fruits of that spirit by which Luther, who projected the system, and they were actuated. "From that time," says Mosheim, "the religious differences between the German princes which had hitherto kept within the bounds of moderation, broke out into a violent and lasting flame." The Romanists, in order to maintain their ground against the reformers, had recourse to measures equally disavowed by the dictates of reason and the precepts of the Gospel. These measures were the force of the secular arm and the authority of imperial edicts. The Protestants shewing that they were actuated by the same spirit, left no means unemployed, however contrary to the precepts of the Gospel, that might cooperate to repel force by force. Luther supplied the place of imperial edicts by exhorting the princes not to abandon those truths which they had lately asserted with so much boldness.

In an assembly of the Protestant princes at Smalcald, held after the Diet of Augsburgh, in 1530, a league was concluded which united the Protestant princes of Germany against all aggressors. Into this league, Francis I., of France, a professed Papist and bloodthirsty tyrant, and Henry VIII., of England, the most cruel and licentious

character of the age, were invited. The latter, however, never assisted the league further than by the advance of some money; the former fought hand in hand with the reformers against the emperor, during a protracted and bloody war. By this it appears that the reformers would have entered into a confederacy with any, however base or wicked, provided they thought that, by it, they had a prospect of gaining their ends against their former brethren. And what shows still more an anti-christian spirit and a thirst for pre-eminence, was Luther's refusing to comprehend in this league the followers of Zuingle, and those who had adopted the sentiments and confession of Bucer, although these were his coadjutors in the present necessary work of reforming the Church.

Time and contentions rolled on, and more violent and iniquitous measures ensued. The emperor Charles V., confederate with the Pope, raised an army of 36,000 men in order to reduce the Protestants to obedience, but they, far superior in numbers, amounting to 85,000, pushed forward their armies and cannonaded the camp of the enemy at Ingoldstadt; but their mutual jealousies and the spirit of contention which prevailed among themselves prevented their success.

From the year 1517, in which the Reformation commenced, by Luther publishing his ninety-five propositions against the proceedings of the Pope and his delegates, until the year 1546, in which Luther died, nothing but the fruits of corrupt ambition is manifest on the whole face of the history of that period of more than 28 years. Endless controversies and debates about diets and councils, civil and military violence are the distinguishing marks of those "times of discord," as Mosheim calls that period. And the means by which the Reformation was finally established were as opposed to the precepts of Gospel as war and bloodshed are to peace and good will to men.

While the Papists and Protestants were concocting plans to subdue each other by the sword, Maurice, Duke of Saxony, a professed Protestant, and a perfect master in the arts of dissimulation, perfidiously makes a league with the emperor, and engages to take up arms against his father-in-law, Philip, landgrave of Hesse, and to strip his near relation, John Frederick, elector of Saxony, of his titles and dominions. Accordingly Maurice, having assembled an army of sufficient magnitude, defeated the troops which the elector had left to guard his country, and took possession of his uncle's dominions. The news of these conquests soon reached the hostile camps, and filled the imperialists with joy and the Protestants with terror. It was but a little while before this event that the confederate Prot-

estants "declared their own resolution to risk everything in maintenance of their religious rites." But a spirit of mutual ambition, of discord, and of anxiety for their temporal interests prevailed to put true religion out of the question.

The elector returned with an army towards Saxony, and the greater part returned with their leaders into their own countries and there dispersed. All the princes in person and the cities, by their deputies, were compelled to implore the mercy of the emperor in the posture of humble suppliants. The cities, even those which had been most highly distinguished for their zeal in the Reformation, now submitted to such terms as the emperor was pleased to offer them. For no sooner was the example set of deserting the common cause than the rest of the members became impatient to follow it, "and seemed afraid," says Robertson,* "lest others in getting the start of them in returning to their duty should, on that account, obtain more favorable terms. Thus a confederacy, lately so powerful as to shake the imperial throne, fell to pieces and was dissolved in the space of a few weeks." The emperor now passes on to Saxony, and the elector and landgrave, the two most powerful chiefs on the Protestant side, are made prisoners with the most humiliating and aggravating terms of submission; and the perfidious Maurice becomes elector of Saxony. Finally the emperor entered Augsburg, and with great pomp established the rites of the Romish religion; and a creed was drawn up containing the essential doctrines of that faith. The greatest part of those who had the resolution to dispute the authority of this imperial creed, were obliged to submit to it by force, and hence arose deplorable scenes of violence and bloodshed which involved the empire in the direst calamities. Thus, the Protestant power was reduced to the greatest extremities, while the Papal power seemed to have recovered its usual strength. The landgrave of Hesse, through the counsel of his treacherous-son-in-law, Maurice, and under the promise of liberty, had submitted to the emperor's demands; but contrary to the most solemn treaty, he was perfidiously imprisoned, and kept for five years in close and severe confinement, although many ineffectual entreaties were in the meantime made for his release by many European princes, and even by Maurice.

Maurice perceiving at length that he was duped by the emperor, entered secretly into a league with the king of France and several German princes for the maintenance of their rights and liberties, and by secret intrigue marched an army against the emperor, and surprised him unawares at Inspruck, where he lay with but a small force,

* Robertson's History of Charles V. Book VIII.

misapprehensive of danger. By this sudden and unforeseen event was the Emperor brought to conclude a treaty of peace with the Protestants, which was done at Passau in 1552. This treaty they call the bulwark of peace and liberty. It was well said by Dr. Robertson concerning Maurice and his perfidious treaty with the emperor, in 1546 before referred to, that "history hardly records any treaty that can be considered as a more manifest violation of the most powerful principles which ought to influence human actions." Yet that same artful dissembler, the treacherous Maurice, who had entered into a league with the Papists against the Protestants, who had inhumanly and faithlessly despoiled his nearest relation of his dominions, and usurped his place, whom the Protestants branded as an apostate from their religion, a betrayer of their liberty, a contemner of the most sacred ties of nature and association; that same perfidious monster of cruelty must of necessity, according to Luther's projects, be the supreme head of the Church. Maurice, however, did not live long to see the effects of his inglorious and treacherous conduct, for he died in the following year of a wound received while fighting against Albert of Brandenburgh. Such were some of the means used by Luther and his followers in reforming the corrupt Church, and establishing what they called religious peace.

In Switzerland and France the Reformation was also carried on by means diametrically opposite to the precepts of the Gospel. In France alone, the gospellers, as the reformers are called, are said to have destroyed no less than twenty thousand churches. Now, how little does such a reformation resemble the first establishment of the Christian Church!

The thirty years war, with which most of our readers are somewhat acquainted, waged in the first half of the seventeenth century, was in effect a war between Protestantism and Roman Catholicism. In this war also, there was a coalition of the Papists with the Protestants against the emperor and the Pope. It was the policy of Cardinal Richelieu, the governor of Louis XIII. of France, then in his minority, to humble the emperor, and prevent his aggressions in Europe; and in order to effect this purpose, the Cardinal was not particular as to the religious principles of the allies with whom he engaged. During the whole life of this minister the war went on, bringing out such generals as the great Condé and Turenne on the part of the French, and King Christian of Denmark, Gustavus Adolphus, King of Sweden, and his general, Torstensohn, Prince Bernhard of Saxe Weimar, and others, on the side of the Protestants. And

when Richelieu and his master died in 1643, it was found that Cardinal Mazarin, who governed for the minor Louis XIV., was prepared for an alliance with the Protestant princes to carry out their plan of humbling the emperor. Under the conduct of Condé and Turenne, and the Swedish generals, the thirty years war continued to desolate the face of Germany, till in the year 1648, the Emperor Ferdinand, weary of continuous defeat, exhausted as to his resources, and unable to cope with the powers against him, sued for peace; and the peace of Westphalia, which secured civil and religious liberty to the Protestant subjects of the Empire, was signed at Munster and brought this long succession of years of war to a close. In such a manner was the Protestant Reformation accomplished in Germany, by wars and contentions and bitter animosities and strifes, even among the reformers themselves, and between them and the old established powers. The true gospel was never preached with quarreling and wrangling and animosity, nor protected in shedding blood with the sword, but with the operation of the holy spirit; and the fruits of that spirit are love, joy, peace, patience, long suffering, gentleness, goodness, faith, etc., to the whole of which the proceedings of the reformers stood in direct opposition from the beginning. Nay, more, the first reformers had sufficient reason for not pretending to be illuminated or influenced by that spirit of godliness, for, otherwise, their conduct would immediately have discovered to the eyes of every beholder, the falsity of their pretensions.

At the Reformation, the one great Church is divided, and soon after subdivided, and so it continued to divide and subdivide until innumerable churches have been formed and reformed, full of clashing principles, sectary against sectary, each claiming the greatest evidence of Catholic orthodoxy. And what is still more remarkable, all these churches still continuing to constitute the universal Christian Church, call themselves the church militant, that is, the fighting Church.

The contentions concerning the presence of Christ in the Eucharist were carried on by the reformers for many years, and finally terminated in a grand division between the reforming parties, one of which claimed Martin Luther as the founder of their church, the other John Calvin, a professor of theology at Geneva. Luther and his followers, it is said, rejected the doctrine of the Romish Church, with respect to the transubstantiation or change of the bread and wine into the real body and blood of Christ; but were nevertheless, of the opinion that the partakers of the Lord's Supper received along with the bread and wine the real body and blood of Christ. "This," says Mosheim, "was in their judgment a mystery which they did

not pretend to explain." But Dr. Maclaine, the translator of Mosheim's history, says: "Luther was not so modest as Dr. Mosheim here represents him. He pretended to explain his doctrine of the real presence, absurd and contradictory as it was, and uttered much senseless jargon on this subject. "As in red hot iron," said he, "two distinct substances, viz., iron, and fire, are united, so is the body of Christ joined with the bread in the Eucharist." This, Maclaine very properly calls, the "nonsensical doctrine of consubstantiation."

Carlostadt, who was Luther's colleague and companion, and whose doctrine was afterwards confirmed by Zuingle, maintained, "That the body and blood of Christ were not really present in the Eucharist; and that the bread and wine were no more than external signs or symbols." This opinion of Zuingle was received by the friends of the Reformation in Switzerland, and by a number of its followers in Germany. But Mosheim says that "Luther maintained his doctrine in relation to this point with the greatest obstinacy; and hence arose in the year 1524, a tedious and vehement controversy which terminated at length in a fatal division." To such a degree had the contentions among the reformers proceeded concerning the Eucharist, that to terminate the controversy, Philip, Landgrave of Hesse, invited in the year 1529, Luther and Zuingle, together with some of the most eminent doctors who adhered to the respective parties of these contending chiefs, to a conference at Marburgh. There they disputed during four days and their dissensions still remained, "nor could either of the contending parties," says Mosheim, "be persuaded to abandon or even to modify their opinions of the matter." Exemplary reformers, these, who needed earthly princes to exhort them to peace, and who would neither reform themselves nor suffer others to reform them!! "In the year 1544, Luther published his confession of Faith in relation to the Sacrament of the Lord's Supper, which was directly opposite to the doctrine of Zuingle and his followers. The doctors of Zurich pleaded their cause publicly against the Saxon reformer." Calvin denied the doctrine of Christ's bodily presence in the Eucharist, and at the same time expressed it in almost the same terms which the Lutherans employed in inculcating their doctrines of Christ's real presence, and talked of really eating by faith the body, and drinking the blood of Christ. Wherein then is the difference between the doctrine of the Pope and that of Luther or of Calvin on this subject? The Pope says that the bread and wine are changed into the very substance of the same body, flesh and blood of Christ that was born of a virgin and crucified of the Jews, so that it is no longer bread. Luther says that the body of Christ is in, with, and under the bread as fire is in red hot iron; so that both the sub-

stance of the bread, and of the body, flesh and blood of Christ are there present. Calvin says that the body of Christ is not really or corporeally there, and yet that by faith the body of Christ is really eaten! If, therefore, the first be "monstrous" the second "non sensical" what is the third? And how by faith or any other way could men really eat what was not really there? Thus, it appears that Calvin put the capstone upon this fabric of superstition when he persisted in denying Christ's real presence in the Eucharist, and yet would have it that his body was really eaten, although it was really absent from the eater. The truth is they were blind guides who had not yet come to the knowledge of what the body of Christ is; and how could they describe it to others? Yet these reformers, who neither understood themselves nor comprehended that whereof they affirmed, must needs kindle the flame of discord, foment divisions, seditions, and tumults among the multitude and breathe the most violent spirit of persecution against all who would not receive their contradictory doctrines which they did not themselves understand. Calvin, however, effected his purpose so far as that an act of uniformity took place by which the churches of Geneva and Zurich declared their agreement concerning the doctrine of the Eucharist.

By the industry of Calvin the schools and churches of England also became the oracles of Calvinism; the Church of Switzerland was acknowledged as a sister church, and the system there established was rendered the public rule of faith in England, without any change being made in the old Episcopal government. The doctrines established in the reformed Church of Scotland also were imported from Switzerland, by the celebrated Knox, and were strictly Calvinistic. Thus John Calvin became the founder of the Calvinistic reformed churches as distinguished from those founded by Martin Luther.

In the year 1552, Westphal, pastor of Hamburgh, renewed with greater violence than ever, this deplorable controversy; he was a stubborn defender of the opinions of Luther. He published a book against the forementioned act of uniformity, which, says Maclaine, "breathes the most virulent spirit of persecution." "This," says Mosheim, "engaged Calvin to enter the lists with Westphal whom he treated with as little lenity and forbearance as the rigid Lutheran had showed to the Helvetic churches. Calvin and Westphal had each their zealous defenders; hence the breach widened, their spirits were heated, and the flame of controversy was kindled anew with violence and fury." These disputes were augmented and tumults were excited by the fierce conflicts which were waged concerning the decrees of God, set in motion by Calvin. And how is it possible

that such ambitious priests as were perpetually blowing the flame of discord and stirring up strifes and contentions with each other, could make any reformation for the better? From their own confession, princes, earthly politicians and civil rulers were perpetually under the necessity of putting a stop to their enormities. Augustus, elector of Saxony, and the Duke of Saxe Weimar summoned the most eminent doctors of both the contending parties to meet at Altenburgh, in the year 1568, that it might be seen how far a reconciliation was possible. But such were the furious and unchristian spirits of these reforming parties as blasted the fruits which otherwise might have been expected from this conference. The princes now undertook another method, and ordered a Form of Doctrine to be composed, in order to terminate the controversies which divided the Lutheran Church itself, and so protect that Church against doctrinal innovations from the Calvinists. This Form was begun in 1569, and was completed by six doctors in about seven or eight years after. This form of doctrine, which was intended to promote peace, when finished was called the Form of Concord, yet the title was found to be incorrect, for it proved to be a Form of Discord, and source of new contentions and tumults among those who instituted it. This form of concord, which condemned the sentiment of the Calvinists, was received by the greatest part of the Lutherans as the great rule of their religion, "and hence," says Mosheim, "arises an insuperable obstacle to all schemes of reconciliation and concord."

It would be endless and, indeed, unnecessary, to enumerate all the cruelties which the sons of the reformation practised against each other in this age. Severe laws and punishments, violent tumults and seditions, imprisonments, banishments and death, were the first fruits of that spirit by which the contending parties of the reformation were actuated. Such were the proceedings in Germany and Switzerland, where the reformation first began, and also in France and in England, as will appear more fully hereafter. But by the Form of Concord was accomplished that division upon which the reformed Churches of Luther and Calvin were established in opposition to each other after many years of furious contention, and unchristian works of violence; and this division still exists just as strictly between the two churches, each still claiming its relation to its first founder. The Form of Concord, so called, consists of two parts. "In the first," says Mosheim, "is contained a system of doctrine drawn up according to the fancy of the six doctors," who had received their orders from and were under the protection of the princes; for these secular princes were clothed with the dignity of ecclesiastical supremacy according to the established principles of

the reformers. In the second (part) is exhibited one of the strongest instances of that tyrannical and persecuting spirit which the Protestants complained of in the Church of Rome, even a formal condemnation of all who differ from those six doctors. "This condemnation branded with the denomination of heretics, and excluded from the communion of the Church, all Christians of all nations who would refuse to subscribe to these doctrines. More particularly in Germany the terrors of the sword were solicited against these pretended heretics, as may be seen in the famous testament of Brentius."

The reformation in England began with Henry VIII, who was a contemporary of Luther. He came to the throne in the year 1509, and died in 1547, the year after that in which Luther died. The long reign of this monarch, nearly thirty-eight years, may be called a continual butchery of human beings. In his reign, according to his historian, there were no less than 72,000 persons suffered death in his kingdom for theft and robbery alone: and the number of executions that took place on account of religion was reckoned at six for every day of this long reign.* He may be said to have comprised in his person and reign the atrocious cruelties of all the Christian Roman Emperors; and if the question were asked, Who was the most monstrously cruel human being that we have any account of in history, it might safely be answered: Henry VIII. of England. Henry did not attach himself to the doctrines of the German reformers, but having broken off with the Pope for certain reasons which we shall mention hereafter, and perhaps through secret motives which were only known to himself, he formed an independent Church of England, of which he had the clergy and parliament make him the supreme head. Throughout the course of his reign he showed almost as great respect to Roman Catholicism as to the Protestantism of Germany or the heresies of England. He looked upon all as heretics who did not conform to his peculiar views, and promptly punished them as such. One Dr. Barnes, a professed Lutheran,* and two other Protestants, named Gerard and Jerome, were carried to the place of execution on three hurdles; and, along with them, there was placed on each hurdle a Catholic, who was also executed for his religion. The names of these Catholics were Abel, Featherstone and Powel; and they declared that the most grievous part of their punishment was the being coupled to such heretical miscreants as suffered with them. We mention this fact especially to show the absurdity and unreality of such religion as is professed by some people. A man's religion seems thus to consist of the system of

* Hume's History of England, Henry VIII.

ideas which he has conjured up in his mind concerning the Deity; for which vain ideas he will sometimes give himself up to suffer an ignominious death. But true religion consists not particularly in any system of ideas a man may have concerning the Deity, or death, or resurrection, or judgment, etc.; *but in the being good and doing good one's self;* in the worship of the infinite and invisible Deity, which is neither an object of the sense nor of the imagination, with the speech and with the understanding, *in spirit and in truth*, and in all proper self-denial and active duty for one's own and other's benefit. Each individual should remember, for his own liberty and consolation, that if one voluntarily sacrifices his life for any other religion than this we have here indicated, which need not consist in any particular system of ideas, he merely commits suicide.

Never was a more absolute despot than Henry VIII. The clergy, the parliament, the people were all his most obedient slaves: and the wish of Caligula, that the Roman people had only one neck, appears to have been fully complied with in the case of the subjects of Henry in relation to their monarch, for with lamb-like gentleness the English people presented their necks to the axe and their bodies to the flames of that tyrant. "The flattery of courtiers," says Hume, "had so influenced his tyrannical arrogance that he thought himself entitled to regulate, by his own particular standard, the religious faith of the whole nation."

The "real presence" was a favorite doctrine of Henry's, and many suffered ignominiously for the denying of it. There was one Lambert, a schoolmaster, who denied this doctrine, and being cited before the prelates, Cranmer and Latimer, and having no other way of escape from that tribunal, he appealed to the king. Henry, not displeased with an opportunity when he could at once display his theological learning, upon which he prided himself much, and exert his supremacy, accepted the appeal and determined to mix in a very unfair manner the magistrate with the disputant. Public notice was given that the king intended to enter the lists with the schoolmaster: scaffolds were erected in Westminster Hall for the accommodation of the audience, the king appeared on his throne accompanied with all the ensigns of royalty: the prelates were placed on his right hand, the temporal peers on his left; the judges and the most eminent lawyers had a place assigned them behind the bishops; the courtiers of greatest distinction behind the peers, and in the midst of this brilliant assemblage was produced the unhappy Lambert, who was required to defend his opinions against his royal antagonist. The bishop of Chichester opened the conference by stating that Lambert being charged with heretical pravity had

appealed from his bishop to the king, as if he expected more favor from this application, and as if the king could ever be induced to protect a heretic. That though his majesty had thrown off the usurpation of the see of Rome, had disincorporated some idle monks who lived like drones in a bee-hive, had abolished the idolatrous worship of images, had published the Bible in English for the instruction of all his subjects, and had made some less alterations which every one must approve of,* yet was he determined to maintain the purity of the Catholic faith, and to punish with the utmost severity all departures from it; and that he had taken the present opportunity before so learned and grave an audience of convincing Lambert of his errors: but if he still continued obstinate in them, he must expect the most condign punishment."

After this not very encouraging preamble, the king asked Lambert what his opinion was of Christ's corporeal presence in the sacrament of the altar; and when Lambert began his reply with some compliment to his majesty, he rejected the praise with indignation and disdain. He afterwards pressed Lambert with arguments drawn from Scripture and the schoolmen. The audience applauded the force of his reasoning and the extent of his erudition; Cranmer seconded his proofs by some new topics; Gardiner entered the lists as a support to Cranmer; Tunstal took up the argument after Gardiner; Stokely brought fresh aid to Tunstal; and six lord bishops more appeared successively in the field after Stokely; and the disputation, if it deserves the name, was prolonged for five hours, till Lambert, fatigued, confounded, browbeaten, and abashed, was at last reduced to silence. His majesty then returning to the charge, asked him whether he were convinced? And he proposed as a concluding argument this interesting question, whether he were resolved to live or to die? Lambert who possessed that courage which consists in obstinacy, and, doubtless, fully persuaded of the truth of the principles which he supported, replied that he cast himself wholly on his majesty's clemency. The king told him that he would be no protector of heretics; and therefore if that were his final answer, he must expect to be committed to the flames. Cromwell, the king's minister, pronounced sentence against him.

Lambert did not appear any way daunted by the terrors of the punishment to which he was condemned. His executioners took care to make the sufferings of a man who had opposed the king as intense as possible. He was burned over a slow fire; his legs and thighs were consumed to the stumps; and when there appeared no

* Henry had gradually and previous to this trial, effected all that is here said.

end to his torments some of the guards more merciful than the rest raised him on their halberts and threw him into the flames, where he was consumed. While they were employed in this friendly office, he cried aloud several times: "None but Christ, none but Christ."

Eleven monks, some of them priors, were executed at Tyburn for denying the king's supremacy. Fourteen Dutch anabaptists, who had come to reside in England, were also burned at the stake. The execution of the bishop of Rochester and Sir Thomas Moore, both men of very high character, for denying the king's supremacy, very soon followed. Both of these died with great magnanimity, and the latter uttered several modest pleasantries on the scaffold; when laying his head on the block he put his beard aside with his hands, remarking that it had not committed treason. These arbitrary murders raised a general outcry, and the tyrant's name was execrated throughout the Catholic world.

Henry next resolved on the suppression of the monasteries and the sequestration of their revenues, a measure arbitrary and despotic indeed, but nevertheless productive of good effects, in that it released many persons whom the avarice or superstition of their parents or their own inclination to an inactive life had immured in these secluded and unnatural abodes. These convents were nurseries of idleness, and must have been, however they were maintained, a burden on the country. By their suppression the king acquired a large amount of money.

Cardinal Pole, a second cousin of the king, found it expedient to absent himself from England during the rigorous persecutions which Henry was carrying on. He was one of the most active of the Papal agents, and had endeavored in vain to excite the neighboring Catholic nations to avenge, by a warlike movement, the injuries suffered by the Church. Unable to get this formidable foe into his hands, the king seized his brother, Lord Montague, and several other persons of distinction, who were executed on a charge of abetting his designs. An inconsiderable rebellion broke out in Yorkshire, but it was soon suppressed, and Nevil, with the other ringleaders, was executed. The rebels were supposed to have been instigated by the intrigues of Cardinal Pole; and Henry was instantly determined to make the countess of Salisbury, Pole's aged mother, suffer for her son's offences. He ordered her to be carried to execution, and that venerable matron displayed great dignity or obstinacy on the scaffold. She refused to lay her head on the block or submit to a sentence where she had received no trial. She told the executioner that if he would have her head he must win it the best way he could; and thus shaking her venerable gray locks she ran about the scaffold, and the executioner

followed her with his axe, aiming many ineffectual blows at her neck before he was able to give the fatal stroke.

These are merely a few examples of the murders committed by Henry VIII. which may serve as a specimen of his long reign. An act of parliament was passed giving to the king's Proclamation all the authority of a Statute of Parliament, thus making him an absolute despot. And this omnipotence or absolute despotism was retained and exercised by the English monarchs henceforward for over one hundred and thirty years, down to the latter part of the reign of Charles I., and after the restoration till the accession of William III., at which time parliamentary liberty began to be a little more freely exercised.

To the question then what did these two horns signify which appeared on the second beast? we reply it is hardly possible for any one who soberly interprets the prophecy in its proper connection and impartially applies the events of history to the illustration of it to mistake its proper application. As the beast represented the nations of the reformation, or rather the up-growth from the reformatory movement in those nations,—which began in the early part of the sixteenth century,—so the two horns would not only symbolize the two great branches into which the reformation was divided of Lutheranism and Calvinism, but also the nations in which these religions are established, or, in short, the two horns represent Protestant Germany and Protestant Britain. As this beast comprised in itself symbolically the civil and religious branches of power, so likewise each of the horns comprised in itself the civil and religious branches of power, for as the root is, so are the branches. And we have already had some illustration of the outworking of the dragonic spirit of this wild beast. No description of the character of this wild beast considered religiously could be better than this we have from the Psalmist. "The words of his mouth were smoother than butter, but war was in his heart; his words were softer than oil, yet were they drawn swords:" (Ps. LV. v. 21.)

In Germany and the other Protestant countries of Europe the civil government, sword in hand, supported the cause of the reformers, protected Luther and Calvin and their co-reformers, and from their time till now, for a period of three and a half centuries, have made the cause of Protestantism their own. And so Sweden and Norway, Denmark, Holland and the German States have each and all a form of government combining in one head the sacred and secular power, as well as England. Thus we see the conditions of the twelfth verse of our prophecy are satisfied: "And he exerciseth all the power of the first beast before him, and causeth the earth and

them which dwell therein to worship the first beast whose deadly wound was healed." He exerciseth all the power of the first beast; that is, he exercises the same kind of power in reality, not necessarily the same in quantity. The sacred and secular branches of power comprehend all the power of a State. These branches of power were wielded by the Roman emperors; and we find them also to be united in each of the princes of the reformation. As the emperors of the Romans, each of these princes, the kings of England and the rulers of the states of Germany as well as of the other European countries in which the reformation took place, united in himself the supreme spiritual and temporal power. But remark, that while he exercises all the power of the first beast, which points to the supreme head of the Roman empire whose seat was at Constantinople, he causes the earth and them that dwell therein to worship the first beast whose deadly wound was healed, which points more particularly to the papacy or to the ruling spiritual and temporal power of the western empire restored, especially as it regarded the seventh-eighth beast. He exercises this power "before him." The word ἐνώπιον here rendered "before" refers to place, not to time, meaning literally before the face or in the view of; and thus it means this second power exercises all the kind of authority which the first power did, carries on the united government of Church and state under his own supervision, and in the face or knowledge of the one that he had supplanted. The power which the reformers supplanted was that of the Roman Catholic Church with the Pope at its head. At the time of the outbreak of the reformation this power was universally exercised in Europe. All the princes and potentates were the sons and obedient servants of the Pope, who pretended to dispose of their kingdoms, and estates, and liberties at his pleasure. The power of the Church and of the Pope was indeed everywhere present in Europe. Kings and emperors were his instruments to compel obedience to his decrees and bulls; so that the powers of the reformation may be said to exercise their authority before him. But as to the worship of the first beast whose deadly wound was healed. It is well known that in the first stage of the reformation Henry VIII. and Luther, the two great originators of the reformation, as well as some of the reformers, showed the profoundest respect and veneration for the Pope and the mother Church. The quarrel between Luther and the Pope arose directly from Luther's opposition to Tetzel in the sale of indulgences; that between Henry VIII. and the Pope arose directly from the Pope's refusal to grant him a divorce from his wife Catharine; indirectly, we believe, from the impetus which the reformation, just begun on the continent by Luther, gave to him, and his own ambi-

tion to be at the head of ecclesiastical as well as civil affairs in England. Dr. Robertson says: "It was from causes seemingly fortuitous, and from a source very inconsiderable, that all the mighty effects of the reformation flowed. The princes and nobles were irritated at seeing their vassals drained of so much wealth in order to replenish the treasury of a profuse pontiff. Even the most unthinking were shocked at the scandalous behavior of Tetzel and his associates, who often squandered in drunkenness, gaming, and low debauchery those sums which were piously bestowed."*

Luther published ninety-five theses or propositions against indulgences, to the whole of which he subjoined solemn protestations of his high respect for the Apostolic see, and of his implicit submission to its authorities. "Leo," says Robertson, "regarded with the utmost indifference the operation of an obscure friar who, in the heart of Germany, carried on a scholastic disputation in a barbarous style. Little did he apprehend, or Luther himself dream, that the effect of this quarrel would be so fatal to the Papal See. Leo imputed the whole to monastic enmity and emulation, and seemed inclined not to interpose in the contest; but to allow the Augustinians and Dominicans to wrangle about the matter with their usual animosity." Tetzel was a monk of the order of St. Dominic; Luther a monk of the order of St. Augustin.

These contentions increasing, became at length a matter of serious concern to the Pope, who in July, 1518, summoned Luther to appear at Rome within sixty days, and at the same time wrote to the elector of Saxony not to protect him. The professors in the University of Wittenbergh, after employing several pretexts to excuse Luther from appearing at Rome, entreated the Pope that his doctrines might be examined by persons of learning and authority in Germany. The elector requested the same thing of Cardinal Cajetan, the Pope's legate at the Diet of Augsburgh. And after all this quarrelling and wrangling about indulgences, Luther himself, who at that time was so far from having any intention of disclaiming the Papal authority that he did not entertain a suspicion concerning its divine original, had written to Pope Leo a most submissive letter, promising an unreserved compliance with his will. A new legate was soon after this appointed by the court of Rome. This was Miltitz, who held three conferences with Luther, two in the year 1519, and one in 1520. In these conferences Luther gave evidence of the gross darkness and superstition under which he lay, and that his conduct was influenced by a spirit of animosity against the Dominicans, although as a reformer he was

* Robertson's Charles V., Book II.

now under the protection of the Elector of Saxony. For he not only offered to observe a profound silence for the future concerning indulgences, provided the same conditions were imposed upon his adversaries, but he went still farther. He proposed writing a submissive letter to the Pope, which he accordingly did, acknowledging that he had carried his zeal and animosity too far. "He even consented to publish a circular letter, exhorting all his disciples and followers to reverence and obey the dictates of the holy Church of Rome. He declared that his only intention in the writings he had composed was to brand with infamy those emissaries who abused its authority and employed its protection as a mask to cover their abominable and impious frauds." "Had the court of Rome been prudent enough to have accepted the submission made by Luther, they would have almost nipped in the bud the cause of the Reformation, or would at least have considerably retarded its growth and progress. But the flaming and excessive zeal or animosity of some inconsiderable bigots renewed the divisions, which were so near being healed, and by animating both Luther and his followers, promoted the principles and augmented the spirit which produced at length the blessed Reformation." * Thus the first proceedings of reforming the Church went on from one degree of contention and animosity to another, until the Reformation was completed by the grand division between the Papists and the Protestants.

The Dominicans, desirous of avenging the affront which their order had received by Luther's treatment of Tetzel, used all their influence at Rome to have Luther excommunicated. The request was finally granted, and the Pontiff Leo issued a bull against Luther, dated the fifteenth June, 1520, in which all persons are forbidden to read his writings, and he is again summoned to confess and retract his errors within the space of sixty days; and if he should not, he is pronounced an obstinate heretic; is excommunicated, and delivered to Satan for the destruction of his flesh. In some cities the people violently obstructed the promulgation of this bull; the persons who attempted to publish it were insulted, and the bull itself was torn in pieces and trodden under foot. Luther, who had a little while before declared that his only intention in the writings he had composed was to brand with infamy those emissaries who abused the authority of the Church of Rome, now boldly declared the Pope to be the Man of Sin, or Antichrist, whose appearance was foretold in the New Testament. He declaimed against Papal tyranny and usurpations with greater violence than ever, and exhorted the princes to shake

* Eccles. Hist., Century XVI.

off their ignominious yoke. Leo, having in the execution of the bull appointed Luther's books to be burned at Rome, the latter, by way of retaliation, assembled all the professors and students of the University of Wittenbergh on the 10th day of December, 1520, without the walls of the city, and with great pomp and ceremony, in the presence of a vast multitude of spectators, cast the volume of the canon law, together with the bull of excommunication, into the flames, and his example was imitated in several cities of Germany. On the sixth of January, 1521, a second bull was issued against Luther, by which he was expelled from the communion of the Church. Thus, from the time that Luther began his reformation in 1517, he always professed the greatest respect and veneration for the Romish Church and the Pope until, in the latter part of the year 1520, he burned the Pope's bull and in less than a month after he was expelled from the Church in the year 1521. And when his final expulsion did take place he was not more than half way out of the church, for as Mosheim says, "he separated from the Church of Rome which considers the Pope as infallible, and not from the Church considered in a more extensive sense; for he submitted to the decision of the Catholic Church."

This great mistake of Luther, which doubtless is due mainly to his ignorance and that of his times, that he continued not only himself to worship the first beast, here the Romish system with the Pope at his head, but taught his disciples and followers to do likewise, has been perpetuated if not aggravated, by retaining so many of the man-made doctrines of the Church of Rome in the Lutheran system of religion, which is worshipped in that system in the constitution of the second beastly power, wherever it exists, even to the present time.

But as we have before intimated, Henry VIII. of England was the completest embodiment of this second symbolic beast in his incipient state as Constantine was of the first; the other principal reformers were coadjutors for a like end, freedom from the Romish power. And now let us see what course this reformer pursued with respect to the Pope and the mother Church, in the beginning of his reforming career. In England, where Wickliffe's opinions were secretly cherished by many, his books were widely circulated. The Church, with great severity and persecution, had endeavoured to check the new doctrines; and Henry himself in the year 1521, (the year in which Luther was excommunicated by the Pope,) with some assistance, produced a "Defence of the Seven Sacraments." The Pope in gratitude, bestowed upon him the title of "Defender of the Faith," a title which the British sovereigns arrogate to themselves to this day, although acting independently of the Church which conferred it and at vari-

ance with some of the doctrines for the defence of which it was given. This performance, coming into the hands of Luther, and he finding himself greatly vituperated therein, answered by another, applying terms equally coarse to Henry, whom he styled among other choice epithets a "Hog of Hell."

The partisans of Henry responded with others in which the lowest depths of scurrility were reached. Henry, as Luther, never separated from the Roman Catholic Church, but only from that Church as it considered the Pope as its supreme head. He adhered to that Church all his life in its most absurd doctrines and practices, and punished not only those who disputed the doctrines of the Catholic Church, whether they belonged to the class of the German reformers or to any other class of dissenters from it. In twelve years after he had come to the throne, Henry stood up as the "Defender" of the doctrines of his mother Church; for the fundamental doctrines of the Romish Church are comprised in its seven Sacraments, which are called the seven pillars upon which the Church is built. He not only stood up conspicuously in the defence of those doctrines himself, but by his power, his influence, and his example he caused his land, that is, "them that dwell therein, to worship the beast whose deadly wound was healed," an expression which points directly to the Romish Church, as represented in the papacy. We may repeat for emphasis that this expression: "Whose deadly wound was healed" applied to the first beast of Rev. ch. XIII., is here added in the description of the second beast to mark significantly the object to which the peoples' attention and worship should be directed, not the supreme head of the Roman Empire, whose seat was at Constantinople, and whose Empire had ceased to exist before the Reformation took place; but the ghostly head of the Western Roman Empire restored, whose seat was the city of Rome, and who, as we have seen in our review of the first beast, came to attract a vast amount of the attention and wonder which would otherwise be directed to the imperial head of the empire. This ghostly head came to arrogate to himself not only supreme headship over the Catholic Church, but also in secular affairs over the rulers of the Kingdoms of Europe, of whose persons and estates he pretended to dispose as he pleased. Yea, and in many cases and for long periods, owing to the ignorance of the times and the depth of superstition into which men were sunk, he did actually dispose of them with the same feasibility as if his pretensions were founded on right.

But as to the course pursued by the first reformers, we see that at the outset they were most zealously affected towards the old establishment, and did all they could to make their followers and subjects

zealously affected in the same manner; so that they might be said to cause the earth and them that dwell therein, that is, those who dwelt within the dominions in which the Reformation took place, as, for example, Saxony or England, to worship the beast whose deadly wound was healed. Verses 13 and 14 of the prophecy are: "And he doeth great wonders, so that he maketh fire come down from heaven on the earth in the sight of men; and deceiveth them that dwell on the earth by means of those miracles which he had power to do in the sight of the beast, saying to them that dwell on the earth that they should make an image to the beast which had the wound by a sword and did live." The word here translated "wonders" is literally "signs," as we have often had it translated "miracles" in the Gospels, and it may be here included in what in the epistle to the Thessalonians is called "signs and lying wonders," as those means by which Antichrist would seek to establish his prestige over the mind of the people.

This refers especially to the ecclesiastical or spiritual power of the second beast, and it means that the power which this symbolic beast represents would possess the faculty of producing such effects in the minds of the people by his superior knowledge of men and things, or by his art, or by this and that combined, that the people would believe that he really did bring down fire from heaven in their sight, or that it was he that produced any other spiritual sign or wonder which they might experience. This power or faculty, call it what we may, this second beast exercises as the first, for the prophet represents him as thus doing. And moreover that wonder or rather phenomenon of the descent of fire from the air, and many other spiritual wonders of different kinds we have ourself experienced, when perhaps, for the want of knowing better, we attributed them to the magic power of some priests who were arrayed under the banner of Protestantism. In modern times, at least, men know that they have the power of influencing each other's minds mutually; nor is this power, or the knowledge of it, confined exclusively to the priesthood; but from their manner of life and their relation to mankind outside of their profession, it is believed that they exercise this power of influencing the minds of men more than men generally do each other, and in their several spheres, and to suit their own purposes, may try to produce all the spiritual wonders they can, and as great as they can. Thus, the Catholic Church and the Protestant priesthood, in common with it, and included in it, have always claimed to exercise the power of producing mental phenomena such as dreams and visions and the like in the minds of those whom they design to influence.

But in general, those dreams or visions, whether they occur to one sleeping or awake should be little noticed or attended to, as at the best, dreams and visions are only representations of real things. The human being himself is above all dreams and visions, and should always consider himself so, and should judge those imaginary phenomena as in general of no account: for if one follows dreams or visions, one loses one's free agency, becomes the slave of mere ideas, perhaps gets into much trouble, and does not know what such a course may bring him to. The right of free agency belongs to man; he is a responsible being, as all law assumes; and if he allows ideas in the way of dreams, or visions, or of systems of superstition, or of any other system, to govern him he voluntarily gives up his birthright, and yields himself as the basest of slaves. *We repeat that men should regard all ideas and all systems of ideas as their servants, and not set them up as their masters, and allow them to tyrannize over them or to dupe them.*

What were all those who worshipped the saints, martyrs, relics, and images, the Virgin Mary, and even the Trinity, as that has been represented in some of the Catholic Creeds, but the mere slaves and sports of superstitious ideas, the dupes of a lordly hierarchy of Church and State, whose purpose it answered to have things so: by such craft they had their gain, and sat above their fellows in high places, though doubtless in all ages there were many of these ghostly hierarchs that were ignorant dupes themselves; and there are a few of such to-day. The Reformation gave a superior knowledge to those who embraced it over their brethren of the Roman Catholic faith; and the ascendant which the Protestant nations have attained over the neighboring nations of the Romish persuasion and of the Greek faith is in the main due to their superior knowledge of men and things. The Pope himself, that ghostly magnate, high in his chair of St. Peter, may often have had reason to suspect since the Reformation took place that there were other ghostly hierarchs besides his in Christendom, who by their power and operations could produce signs and wonders in the sight of the beast. And what effects such imaginary signs and wonders may sometimes produce in the mind of a superstitious man, say, for example, a general or an admiral! "Saying to them that dwell on the earth that they should make an image to the beast which had the wound by a sword, and did live." This indicates a second stage of the progress of this power symbolised by the second beast. It indicates the course which was pursued by the German reformers and the King of England when, in 1527, the Elector John of Saxony ordered a body of laws relating to the form of ecclesiastical government, the method of public worship,

the rank, offices, and revenues of the priesthood, to be drawn up by Luther and Melancthon, and promulgated by heralds throughout his dominions, (the example of the Elector of Saxony was followed by all the principle States of Germany which embraced the doctrines of Luther;) and when the independent Church of England began to be formed, on Henry VIII. assuming the spiritual supremacy in 1531. Then began the English system to be established, which, as to doctrine and form, so much resembled the Romish system as to have been represented symbolically as an ἔικων or image of it. And so were all the reformed systems images of it, some of them, however, more perfectly representing the original than others. The supreme ruler of each of these reformed States comprising in his person the two branches of power, civil and ecclesiastical, over his own dominions, was an image or living representation of the Christian Roman emperor whose seat was at Constantinople. But as to the doctrines which these churches professed, of which these princes were the supreme heads, they were derived from the Romish Church, the mother from which the reformed Churches sprung; and hence the image is said to be of the beast which had the wound by a sword, and did live.

We have stated before that the combination of power that arose in the western part of the Roman Empire, consisting of the Pope and the Western rulers, corresponded to the little horn of Dan. VII., before which three horns fell, and to the beast's wounded head healed, or slain head revived, of Rev. XIII., 3. Hence it is plainly seen, as it must have been from all that has been said concerning it, that the Eastern and Western Roman Empire constituted the first beast, the beast which had the wound by a sword, and did live: and that the Western Empire revived by the Pope, and the Western Emperors did not, as some have erroneously supposed,* represent the second beast of Rev. XIII. It stood for the little horn of Dan. VII., and for the wounded head healed of Rev. XIII., 3; and the second beast must therefore necessarily signify a different combination of power from that represented in the Roman Empire of the East or West. And the circumstance of this second beast causing an image to be made to the beast which had the wound by a sword, and did live, which image refers particularly to one that was to be made of the Romish Church system, having the Pope at its head, will prove unmistakably to the reader that we make the proper application of the prophecy in the case of the second beast, which we are now considering. For, as the wounded head restored was especially represented at Rome in the Western Empire revived, and as this especially represented the beast which had the wound by a

* See, for example, Barnes' Notes on the Revelation: also, Newton's Dissertations on Prophecy, XXV.

sword, and did live, so it could not be said that an image of this could be made before itself existed, or that the image and the original could be one and the same thing. As the original must exist before an image is made of it, so the Romish Church system with the Pope at its head, to which the image in the text properly refers, had to exist before the English or Lutheran Church system, or any other reformed Church system, could be patterned after it. These reformed systems of Church and State were images of the Roman Empire in general, whose seat of Government was at Constantinople; and as regards their ecclesiastical systems in particular, they were images of the Romish Church, from whence they sprung.

The word εἰκων denotes a physical image or figure, something that is or is not produced by the ingenuity and handicraft of man. It has a figurative sense also, but here it retains its literal signification. For the new establishments, clerical orders with their habits, church-rates and rituals, rites and ceremonies, &c., all had to be invented, or defined and determined, and many of them were introduced with great parliamentary debate and popular opposition during many successive years, except the three creeds and the two sacraments, and some other doctrines of the Church of Rome which the Protestant Churches retained.

The Reformed Church systems were completed gradually; that of England during the reigns of Edward VI. and Queen Elizabeth was brought to about the same state at which it still remains; but on principles considerably different from those established by Henry VIII., namely, on the principles of Calvin; the Lutheran Church was built upon the principles established by Luther. We may remark that the creeds and the two sacraments, as they are popularly understood and used, specially by those Reformed Churches which approximate most closely to the Romish Church idea, constitute in the main the image of the beast, spiritually considered. There is a proper use of the sacraments, a use for which they were designed, and it would be well if only that use were observed. The Lord's Supper was designed to bring Christians together, so that they might mutually cultivate the spirit of charity, and occupy their minds with the contemplation of the self-denying and holy life of the true Christian. Baptism was instituted mainly in order to bring men to the understanding of what they really are before that rite is performed on them, and to instruct them as to what their life and conversation should be after it. But in professing the doctrines of the creeds, they professed a system of ideas, which as popularly understood, are merely ideas, having no reality. And in worshipping the Trinity of the creeds, which is the fundamental doctrine of the Orthodox Reform-

ed churches, in common with the Church of Rome, the Greek, and other branches of the Catholic Church, they, in a sense, commit idolatry,* for they have to personify in some way the object or the complex object of their worship. No object should be worshipped which can be seen with the eye or conceived by the mind; the deity hears the earnest fervent prayer that is addressed to Him, as well in the desire of the pure and contrite heart as in the expression of the tongue, and as well in the latter way as in the former, provided the heart be right. The worship of the pure and the contrite heart is what is required and will not be despised. But the proud and the perverse in heart, and the idolatrous are abominations to the Lord. And the princes and potentates, whether civil or ecclesiastical, who arrogate to themselves the worship of their fellow creatures are a vile abomination, and infinitely below the humblest beggar, if he be a true Christian, in God's eyes. The bishop of Rome and all the dignitaries of the Roman Empire, civil and ecclesiastical, arrogated to themselves very high titles. Nor have the Protestant nations any reason to reflect on them for that, as they lack nothing themselves on that score. Besides the ordinary titles which appear in their creeds and confessions, forms of prayer, &c., such as Lord, Sovereign Lord, Dread Sovereign Lord, as applied to their kings, they need but look into the preface of the authorized version of the English Bible to find a title as presumptuous as ever Pope or Emperor sustained: THE MOST HIGH AND MIGHTY PRINCE JAMES, &c. Higher than the MOST HIGH cannot be. Then from the MOST HIGH and Mighty they have the long list of Lords, Dukes, Counts, Earls, Knights, Barons, &c., with the corresponding priestly titles, Lord Archbishops, Lord Bishops, Most Reverend, Very Reverend, Right Reverend Deans, Venerable Arch-deacons and Deacons, Reverend Rectors and Curates, &c. Virtue never needed the help of flattering compliments or pompous titles. It was always vice and corruption which required such vain additions, as well as *long* prayers and outward show of sanctity to change their native appearance and ward off deserved

* The word idolatry, from the Greek *εἰδῆειν*, "to see" and *λατρεία*, "worship" is here used in its literal sense, and means the worship of something seen or conceived. Our word "idea" comes from the same root *εἰδῆειν*, and you easily understand what an idea means, it means a picture or image of something conceived in the mind. Therefore, in the case of the worship of the Trinity of the creeds one has to conceive in one's mind some complex idea, that is, to personify in some way the object of worship. But there is not the slightest doubt that the Supreme Being is altogether beyond our conception as any object or thing, and, therefore, any idea we can form in our mind, any object we can see with our eyes or conceive in our mind, is a creature, not the Creator. We do not necessarily attach any bad meaning or idea of guilt to the word idolatry in connection with the worship of the Trinity, we only mean to say that the worship of anything we see or conceive is unnecessary, since the Deity is the Omnipresent Being to be worshipped in spirit and in truth: we only explain in order to simplify the subject and then leave the readers to judge for themselves.

condemnation. These bombastic titles are the offspring of pride and vanity, not any honor to those who receive them, and displeasing in the sight of a righteous and holy God. The humble, godly man is infinitely more content without them; does not seek or need them.

We here give a few extracts from a speech of Sir Charles Dilke, a British member of Parliament, as it is copied from the London *Daily News* of November 10th, 1871, and which may give some idea of the cost and grandeur of royalty in England. He said: "We have first to deal with the sum of £372,000 a year expended upon the privy purse and upon the household; to which I add the Royal bounty and Royal alms, which amount to £13,000, making up the sum to £385,000. We next have £131,000 of annuities of a similar kind to that which we lately had to consider; the income of the Duchy of Lancaster, £32,000; that of Cornwall, £63,000; the interest on lump sums, such as that given to Princess Louise, which have been paid to the various members of the family still surviving, about £10,000; making £621,000. Steam-packets, insignia, presents, such as were given by Prince Alfred in Australia and elsewhere, pensions to royal servants, rangerships of parks, not borne upon the civil list, make £7,000 more; and military and naval pay to other members of the family about another £20,000. The palaces (omitting Hampton Court, which is a public show-place,) are £47,000 more. On Windsor Park there is a deficit in the woods and forest account, and that deficit of £12,000 about represents the cost of the keepers, game, and other royal, as contrasted with public expenses in reference to the park. This makes £707,000, which is the end of the figures which are of a very certain and tangible character. Beyond this we have two large sums, as to one of which we can be fairly accurate, as to the other of which we can give nothing but a guess. The first of these is the cost of the Guards. I calculate that the cost of the Guards, over and above the cost of an equal number of the Line, including an increased and increasing expenditure caused by the expensive nature of the sites of two of their barracks in the immediate neighborhood of Royal palaces, would be about £100,000. You have been told that the army has been bought back from the officers at an expense of eight or ten millions; that purchase has been abolished; that a competitive examination must be passed before a man can enter the army, and yet you have those young gentlemen, the Queen's pages of honor, allowed to pass into the army by the back-door; and the only men who have not to go through their examination. The other of the sums is, as I believe, the largest of all the separate items of expenditure connected with the Royal Family, and this is the cost of the Royal yachts. We all of us have heard

the stories of the harm done to the naval service at the time of the Crimean war—both actual, and incidental harm of a moral nature, —by the diverting of the service of men who ought to have been employed upon our war-ships to the finishing for the Queen of one of the Royal yachts, the "Victoria and Albert" I believe. But few are aware of the vast expenditure which still and at all times goes on upon Royal yachts, expenditure for building, for repairs, for coals, for seamen's wages, for pensions to the late officers and seamen of the yachts, an expenditure which at the least cannot be less than £100,000 a year, and which, having taken great pains to ascertain the facts, I believe very largely indeed to exceed that sum. As an instance of the decorative character of these yachts I may say that I found an able-bodied seaman who was maintained all the year round to paint the lion and the unicorn on the five brackets! Well this makes the total figure £906,000, and I think that, speaking roughly, you may say that the *positive and direct* cost of Royalty is about a million a year. In addition to the increase that I have mentioned, it is worth remembering that the Royal Family are the only persons in the kingdom who pay no taxes, and even these annuities which we have lately granted are expressly free from all taxes, assessments, and charges. I need hardly say that all these enormous sums of money are not well spent, and it is almost worth a few minutes time to see in what kind of manner they do contrive to disappear. The salaries in the Royal Household, which amount to 131,000 a year, include a vast number of totally useless officials, Chamberlains, Controllers, Masters of Ceremonies, Marshals of the Household, Grooms of the Robes, Lords in Waiting, Grooms in Waiting, Gentlemen Ushers and a few persons who appear to perform services, but who ought to be paid for those services as they perform them, and not be made permanent officials with great titles of honor, such for instance as the Historical Painter to the Queen, Portrait Painter to the Queen and the Lithographer in Ordinary under the Lord Steward's department, and the department of the Master of the Horse; we have such offices as the Coroner of the Household, and the Chief Equerry, and Clerk Marshal, and various others whose duties are not of a very burdensome description.

Nothing is more singular than the constitution of the medical department. You would hardly credit the number of medical gentlemen who are required for the service of the household, but I am aware that some of them are unpaid. There are three physicians in ordinary, three physicians extraordinary, one sergeant surgeon extraordinary, two sergeant surgeons, three surgeons extraordinary, one physician of the household, one surgeon of the household, one surgeon

apothecary, two chemists of the establishment in ordinary, one surgeon oculist, one surgeon dentist, one dentist in ordinary, and one other physician, or 21 in all;—while the Prince of Wales has for his special benefit, three honorary physicians, two physicians in ordinary, two surgeons in ordinary, one surgeon extraordinary, one chemist, or 11 more; making 32 doctors in one family. I would be almost afraid of tiring anybody who listened to me while I went over the list of strange officers of which the household is made up.—Lord High Almoner, sub-Almoner, Hereditary Grand Almoner, Master of the Buckhounds, Clerk of the Check, Clerk of the Closet, Exons in Waiting, and last but not least the Hereditary Grand Falconer, the Duke of St. Albans. If we turn to the Lord Steward's department, we come at once upon a mysterious Board of Green Cloth, as it is called, at the head of which are the Lord Steward, the Treasurer, the Comptroller of the Household, and the Master of the Household, with a perfect army of secretaries and clerks, and with special secretaries with special offices and with special salaries in each of those sections of the department. In the kitchen department we have a chief cook and four master cooks receiving salaries of between £2,000 and £3,000 a year between the five, and a host of confederates, some of whom have duties that I cannot even guess at,—such for instance as the two "Green office" men. There are whole departments, the duties of which cannot be very considerable, one would think, or, at all events, not considerable enough to warrant them being made into departments of the household; for instance, the confectionery department, and the ewer department, while the duty of table-decking employs no less than five persons, who have salaries of between £500 and £600 a year in all." * All this, it is seen, has reference to the maintenance of the monarch and the royal household; it does not enumerate the great officers of the State, the Army, the Navy, and the Church, in their several ranks, which have their representatives at the palace, encompass the Throne of Royalty, present a grand and terrific appearance to the eyes of common people, and replenish their pockets largely from the public purse. It is hardly probably that at any period of history the palace of the Roman Emperors of Constantinople presented so grand an appearance, employed so many officers, or incurred so much expense as that of the

* It, however, can hardly be said that the monarch is solely responsible for the extraordinary expense attending the Royal state. The nation authorizes or assents to it; and the sons of the present monarch of Britain who are engaged in the public service are entitled to their salaries as any other public servants are. The donations given to the princesses vidence a national privilege. The Republican form of government of the United States is also more expensive than might be supposed, owing partly to the many State governments and to the oft-recnrring elections.

British Monarch of the nineteenth century. But the Court and the Monarch of Britain represent above all others in Europe the Court and Emperor of the Eastern Romans. The comparatively modest and frugal princes and courts of Lutheran or Calvinistic Germany having now banded themselves into an Empire with the late King of Prussia at their head as Emperor, may henceforth be vainly inclined to vie with Britain in the grandeur and expense of their supreme Monarch and his court. But it is much to be desired for the honor of God and for justice to mankind that these princes should show the example of modesty, humility and frugality, not receiving any more from the public than a fair compensation for their services, and not allowing any homage to be rendered to them by their fellow-creatures such as is now required by some of these sovereigns, which is in a high sense wrong and displeasing to a righteous and holy God. All this should be enough to make Protestants blush when they speak of the wickedness and blasphemies of the civil and ecclesiastical potentates of Roman Catholic Christendom or any other part of Christendom. In those countries, which are governed by Kings or Emperors, the popular ideas of the Deity are to a great extent derived from Royalty; the discourses of the clergy are replenished with illustrations drawn from thence; and we have even heard men in our own country undertake to address Sabbath-school children on religious topics and illustrate their ideas of Deity by comparison with the unapproachable grandeur and majesty of an earthly prince, which is indeed not only exceedingly improper, but wicked, to compare the infinite and incomprehensible Deity in anywise with a vain worm of the dust. No such illustration should ever be made use of in religious discourses; royalty itself might well be discontinued and abolished in every nation where it exists as soon as this can be done equitably to all concerned in such a change, by the vote of the majority of the people governed, who are the sources of the power: yea, such rulers themselves should be the first to lay aside their royal weeds, their assumptions, and their arrogance.

The Lutheran Church and the Church of England approached somewhat nearer to the Romish in doctrine and in form than any other branch of the Reformed Churches. This will be seen by an examination of the history of the Reformed Churches, and by an observation of them to-day. The difference between the doctrine of the presence of Christ in the Eucharist, as professed by the Lutherans, and that as professed by the Papists, is merely in sound; and the difference between the doctrine of Archbishop Laud in the time of Charles the First, that of the High Church Episcopal to-day

on the one hand, and that of the Church of Rome, is nothing in principle; it is only in their respective ecclesiastical habits and in the names by which they are called, Protestant and Papist, that these differ. So that these two branches of the Reformed Church, the Lutheran and the English, or Protestant Episcopal, are more truly images of the Romish Church than any of the other Reformed Churches, although, as we have before mentioned, all the particular Church systems which have sprung from the Reformation are images of the Romish Church so far as they have retained her doctrines, as in the creeds, and her practices in any way. Thus, the whole reformatory system of Church and State is an image of the Roman Empire, and Lutheran or Calvinistic Germany and Calvinistic Britain are the representative horns or powers.

Verse 15 is: "And he had power to give life to the image of the beast, that the image of the beast should both speak, and cause that as many as would not worship the image of the beast should be killed." It is literally: "And it was given him to give spirit to the image of the beast, &c." It does not here say by whom this power was given, but it means that the beast possessed the power. It is given us to understand that this second beast would have the power of giving an influence to the image of the Romish religious system which he would cause to be established. The beast here referred to signifies particularly the supreme ruler of Church and State in each of the independent nations in which the Reformation took place, as for example, in England, and in the German States. The spirit or influence which he would give to the new religious system, the image of the Romish religious system which he should cause to be established in his dominions, would be the monarch's own influence, power, and support in favor of that system, as its originator, patron, protector, and supreme head, and who, being the supreme ruler of the State, would make all conform to it, whether they were willing or not. This was actually so in Germany, and especially in England. The Lutheran "Form of Concord," before mentioned, which was drawn up by the six doctors, under the supervision of the secular princes, or supreme heads of the Lutheran Church, in its second part formally condemns all who would not subscribe to its doctrines as drawn up in the first part of it, "according to the fancy," as Mosheim expresses it, "of the six doctors." And more particularly were the terrors of the civil sword solicited and employed against those pretended heretics and non-conformists in Germany, as may be seen in the Testament of Brentius. The Lutherans and Calvinists went hand in hand on the continent of Europe in persecuting to the death the Anabaptists and all others whom they in common considered here-

tics. And the Church of England, imbued with the same spirit, through its supreme head, and all the branches of its hierarchy, spoke with authority and arrogance, as if with the voice of a dragon, against all reputed heretics, non-conformists, and papists, and banished and burned them in hundreds for a period of two centuries: so that it could be said that they, that is the ruling powers, caused as many as would not conform to all the rules and rites of their established religion to be killed.

However abominable the doctrine of compulsion is, and however corrupt the source from which it flows, the Protestant Reformers retained it in its full extent. This is manifest from their giving up people of different religious opinions from their own to be oppressed and punished by the civil rulers. Robinson very justly says: "Dominion over conscience is antichrist anywhere. At Rome Antichrist is of age, a sovereign, and wears a crown; at the meanest meeting-house, if the same kind of tyranny be, Antichrist is a beggar's baby at the breast; but as conscience everywhere is a throne of God, so a usurper of his throne is Antichrist anywhere." * Whatever deranges the equality of Christians is the spirit of Antichrist. Call it truth or piety or virtue, or whatever we may, the whole is in direct opposition to the Gospel, so long as that persecuting spirit remains connected with it.

It was but a short time after the Reformation began that the cruel work of persecution was commenced by the Reformers, in order to bow down every effort on the side of freedom, and to extirpate every heretic who dared to oppose the corrupt and ambitious plans of the Reformers. And according to the historians of his time, no one was more fit to set the example of a cruel persecutor than Martin Luther. His most favorable historian, Mosheim, himself of the Lutheran faith, in speaking of the bitterness and animosity of the first Reformers, says: "Luther himself appears at the head of this sanguine tribe, whom he far surpasses in invectives and abuse, treating his adversaries with the most brutal asperity, and sparing neither rank nor condition." He considered everything as subordinate to his own opinions under the name of truth, and poured forth, against such as disappointed him in this particular, a torrent of invectives, mingled with contempt.† He fell out with Carlostadt, one of his co-Reformers, and not only had him banished from Wittenberg, but followed him from place to place, having him frequently expelled. He could not agree with Calvin nor with Zuingle, who as himself, were supported by powerful patrons, and he was immensely angry with

---

* Ecclesiastical Researches, p. 173.

† Hist. Charles V. Book VIII.

the Baptists, who had none. He had himself taught the doctrine of immersion, but he could not bear the article of Reforming without him. This exasperated him to the last degree; he became their bitter enemy; and notwithstanding all he had previously said in favor of immersion, he persecuted them under the name of rebaptizers or Anabaptists. There was a Thomas Muncer, who had been a minister at several places, being persecuted through the influence of Luther and compelled to seek refuge where he could. There were Nicholas Stork, Mark Stubner, Martin Cellarius, and others against all of whom Luther set himself. When he heard of them settling anywhere he officiously played the part of a universal bishop, and wrote to princes and senates to expel such dangerous men. "It is," says Robinson, "very truly said by Cardinal Housius, that Luther did not intend to make all men as free as himself; he had not foreseen that other men would apply the same reasoning to his tyranny over conscience which he had so successfully applied to that of the Pope, and, therefore, he dethroned him that he might set up himself."* His colleague Carlostadt found this to his sorrow. On Luther's plan there was no probability of freedom coming to the people. It was only designed to free the priests from obedience to the Pope, and to enable them to tyrannize over the people in the name of the Civil Magistrate. Muncer saw this fallacy, and remonstrated against it; and this was the crime for which he was punished by Luther with an unpardonable rigor, and which the followers of Luther have never forgiven to this day. Observe the spirit of the followers of Luther; Muncer, say they, was a man well skilled in the knowledge of the Scriptures before the devil inspired him; but then he had the arrogance to preach not only against the Pope, but against Dr. Martin Luther himself. As if Martin the Saxon had any better patent for infallibility than Leo the Romish Pope.

But the principal occasion Luther took to give vent to his persecuting spirit was that of the insurrection of the peasants called the "Rustic War." When these long deluded and oppressed creatures sighed for religious and civil liberty the clergy of all orders agreed to reproach them for their depravity, and to scandalize the first of all human blessings with the odious name of carnal liberty. Muncer drew up for the peasants a memorial or manifesto, setting forth their grievances, which they presented to their lords and dispersed all over Germany. Luther wrote four treatises on the subject. The first was an answer to the manifesto, in which, though he told them that the princes were cruel oppressors who had no excuse for their

* Eccles. Hist.

injustice and deserved to be dethroned by God, yet that it was sedition in the oppressed to resist them. His advice to them was that they should not resist evil, but when they were smitten on one cheek they should turn the other also; that this was the doctrine of Christ, and such doctors as taught otherwise were worse than Turks and inspired by the devil. But this same Luther, who under the mask of a minister of Christ exhorted the oppressed peasants not to resist evil, wrote again to the princes and endeavored to convince them that it was their duty to kill and exterminate those same peasants as they would *mad dogs*.* The princes set about the work agreeably to the instructions of this double-faced Reformer, and thousands fell victims to the ferocious and more than savage massacres in which both Protestants and Papists became united, and in which the peasants without distinction became involved in one common fate of fire and sword, and suffered with the utmost barbarity. That Luther's persecuting rage was mainly directed against those whom he condemned in his writings under the name of Anabaptists, and who unjustly suffered without resistance, appears from what follows: "It is to be observed," says Mosheim, "that the leaders of that sect had fallen into that erroneous and chimerical notion that the new Kingdom of Christ, which they expected, was to be exempt from every kind of vice, and from the smallest degree of corruption, and so they were not pleased with the plan of Reformation proposed by Luther." This was enough to kindle the flame of resentment in the breast of Luther, who by taking the Church as it was under the reign of the Papacy, included whole parishes and kingdoms, with all the inhabitants of every description, in the Church. That the most cruel resentment was kindled in the breast of Luther against these people is evident from his famous Augsburgh confession, each article of which begins with *Docent*, that is, they teach, and ends with *damnant*, that is, they condemn, and many of them with *damnant Anabaptistas*, they condemn the Anabaptists. We may enquire what right Luther, who had just before been condemned by the Pope, had to call in question the sentiments of others and presumptuously condemn those who conscientiously differed from him in their religious opinions, as if Dr. Martin Luther had all power in heaven and in earth. It was a horrid crime in Luther's eyes for any one to expect a pure and unspotted Church, and for that reason to be dissatisfied with his plans of reformation.

Thus, after the plan of the Catholic establishment we here find a complete fusion of the Church with the world by Luther. If a

---

* Consult Eccles. Hist., Cents. XVI., chap. II. Also "Christ's Second Appearing.

corrupt and tyrannical Church had been the object of the pursuit of these reputed heretics, both they and their ancestors found one to their sorrow long enough before Luther rose up to establish his by the sword of earthly princes. The fact is, that the reputed heretics had, in every age, witnessed a good confession against Catholic Orthodoxy by cheerfully sacrificing all earthly comforts and even their lives in support of their faith concerning a pure Church, and the same undaunted spirit continued to witness against the Protestant Reformers, and gave them a fair opportunity to prove that they were actuated by the same spirit, and exercised all the persecuting power of the first beast. "In almost all the countries of Europe," says Mosheim, "an unspeakable number of those unhappy wretches preferred death in its worst forms to a retraction of their errors; neither the view of the flames that were kindled to consume them, nor the ignominies of the gibbet, nor the terrors of the sword, could shake their invincible but ill-placed constancy, or make them abandon tenets which appeared to them dearer than life and all its enjoyments." But this historian soon after adds: "It is true, indeed, that many Anabaptists suffered death because they were judged incurable heretics; for in this century, the error of limiting the administration of baptism to adult persons only, and the practice of re-baptizing such as had received that sacrament in a state of infancy were looked upon as most flagitious and intolerable heresies." Now what greater cruelties did ever the Church of Rome practice than to burn to death such as they judged to be incurable heretics when no other charge could be brought against them? But Mosheim, that Lutheran ecclesiastic, is pleased to call their faith concerning a pure Church an erroneous and chimerical notion, and their sentiments errors, and their constancy, with which they faced death in its worst forms, ill-placed. See Ephes. V, 27; Rev. XXI, 27. In the same manner the Popish historian, Thuanus, speaks of the Waldenses, "that they were rather slain, put to flight, spoiled everywhere of their goods and dignities, and dispersed here and there, than that, convinced of their error, they repented." * It is acknowledged by their enemies that many of those Anabaptists were of the most upright intentions, and sincere piety, and that the innocent, with those who were accounted guilty, suffered with undistinguishing cruelty. But it is remarkable that all those undistinguishing cruelties, carried on under the pretence of suppressing heresy or sedition, were practised in the same persecuting spirit, and accompanied with like misrepresentations and slanderous accusations as were used by the

* Newton's Dissertations on Prophecy, Diss. XXIV.

ancient Pagans in their persecutions of the primitive Christians. And besides those undistinguishing cruelties exercised at the instigation of Luther, what fruits do we see his Reformation produced in his own heart and life? After he had practised it for twenty years it did not save him from his outbreaking sins, but directly to the contrary. "He grew daily more peevish, more irascible, and more impatient of contradiction." So says Dr. Robertson. His whole life of ambition and cruelty well comports with the character which he gives of himself in his last will; and whether any temporal Monarch or Pope ever discovered the feelings of his own ambition more than Luther did, may be judged from what follows: "I am known," says this Reforming monk, "in heaven, in earth, and in hell, and possess consequence sufficient for this demand that my single testimony be believed, seeing that God, of his Fatherly compassion, hath intrusted to me, though a reprobate man and a miserable sinner, the Gospel of his Son, and hath granted that I should be so true and faithful in it, that many in the world have received it from me as a doctor of the truth, while they contemn, with detestation, the bans of the Pope, of Cæsar, of Kings, of Princes, and of priests, yea of all devils!!! Why then may it not suffice for this disposal of a small estate, if the testimony of my hand be affixed, and it can be said Dr. Martin Luther, God's Notary and Witness of his Gospel, wrote these things."

Such is a faithful representation of the character of Luther, taken from himself and from the most faithful historians of his times; and it appears to us, though we have not the least desire, nor are we at all interested to lay upon him, or upon any other of the Reformers, a greater burden of iniquity than their memory is worthy to bear, that he who says that God has entrusted to him his Gospel, while the conduct of his whole life and his final testimony, signed with his own hand, pronounce him to be a wicked, reprobate man and a miserable sinner, was, to say the least, inconsistent; or rather he had never during his life come to a knowledge of God; for if he had, he would not have acted thus wickedly.

The same persecuting spirit which actuated Luther was manifested also in John Calvin. At Geneva he acted the part of a universal bishop, presiding in the assembly of the clergy and in the consistory, and punished heretics of all kinds, who had the confidence to object against his ecclesiastical system of tyranny, with unremitting rigor. There was one Gruet, who was charged with denying "the divinity of the Christian religion," that is, the religion then established at Geneva "and the immortality of the soul." He also called Calvin the "new Pope" and became guilty of other like impieties, for

which he was brought before the civil tribunal in the year 1550 and was *condemned to death*. There were others who could not receive his doctrine of eternal and absolute decrees. "These adversaries," says Mosheim, "felt by a disagreeable experience the warmth and violence of his haughty temper, and that impatience of contradiction which arose from an over-zealous concern for his honor, or rather for his unrivalled supremacy." "He would not suffer them to remain at Geneva, nay, in the heat of the controversy, being carried away by the impetuosity of his passions, he accused them of crimes from which they have been fully absolved by the impartial judgment of unprejudiced posterity." Among the victims of Calvin's unlimited power and excessive zeal we may reckon Castilio, master of the public school at Geneva. He was deposed from his office in the year 1554, and banished. A like fate happened to Bolsec, a professor of medicine, whose favorable opinions of the Protestant religion first brought him to Geneva; but finding himself mistaken, he had the assurance, in the year 1551, to raise his voice in the full congregation against absolute and unconditional decrees; for which he was imprisoned, and soon after banished.

But none appears to have given Calvin more trouble than did Michael Servetus, a Spanish physician, who appeared in the year 1530, and by his abilities, both natural and acquired, had obtained the patronage of many persons of authority in France, Germany, and Italy. Notwithstanding these advantages, finding him in his power, Calvin had him imprisoned, and an accusation of blasphemy brought against him by the Council.

Servetus was a man of a free and liberal turn of mind, "he was," says Robinson, "an original genius, of a manly spirit, bold in his inquiries after truth, and generous as the day in communicating his opinions, not doubting that he had as much right to investigate the doctrine of the Trinity as others had that of Transubstantiation."

In the year 1531-2, he published two books, both intended to disprove the doctrine of the Trinity; and as they denied the popular notions of persons in God, and affirmed that Jesus was a man, they procured for him a great number of enemies and also many friends. He had freely communicated his opinions to Œcolampadius and Bucer. Both these reforming divines had the character of mildness; but Œcolampadius thought anger just in this case, and Bucer declared from the pulpit that Servetus deserved to be torn in pieces, and have his bowels torn out of him. All the artillery of the orthodox was now directed against this schismatical Spaniard, blasphemous heretic, for so they, whom the greater part of Europe then called heretics, had the inconsistency to denominate Servetus.

Calvin having published his favorite production entitled "Christian Institutes," Servetus read this book, and finding in it a great number of mistakes and errors he took the liberty to inform the author of them. This so irritated Calvin that he never forgave him, and instead of profiting by the advice, he wrote to his friends Viret and Farel "that if ever this heretic should fall into his hands it would cost him his life." And so it finally happened. Calvin had an admirer at Geneva whose name was Trie: this Trie had a relative at Lyons, a Papist, whose name was Arney, who incessantly exhorted his cousin to return to the bosom of the Church. Calvin dictated letters in the name of William Trie who directed them to Arney, and the latter carried them to Ory the Inquisitor. To unfold more fully Calvin's private character we shall here give the contents of this letter to Trie. "I thank God that vices are better corrected here than among all of your officials; with you they support a heretic who deserves to be burned wherever he is found. When I mention to you a heretic, I mention one who shall be condemned by the Papists as well as by the Protestants; at least he deserves to be so. For although we differ in opinion about many things, we are still agreed that there are three persons in the essence of God. You may cruelly burn us, but behold, him who shall call Jesus Christ an idol, who shall destroy all the foundations of faith, who gathers together all the dreams of ancient heretics, who shall even condemn the baptism of little children, calling it a diabolical invention, and he shall have the vogue amongst you, and be supported as if he had committed no fault. Where, pray, is the zeal you pretend to? And where is the wisdom of this fine hierarchy you magnify so much?" By this means Servetus was seized in the year 1553 and cast into prison; but in four days after he managed to make his escape, and could nowhere be found. The prosecution was carried on in his absence, and he was condemned to be burned alive in a slow fire; and seeing his person could not be found, the sentence was executed upon his effigy. "The effigy of Servetus was placed in a cart with five bales of his books, and all were burned together for the glory of God and the safety of the Church."* Four months after this Servetus was discovered, while waiting for a boat to cross the lake of Geneva, on his way to Zurich. Calvin received intelligence and prevailed on the chief magistrate to arrest and imprison him, although it was on the first day of the week when, by the laws of Geneva, no person could be arrested except for a capital crime. But Calvin urged that Servetus was a heretic and that heresy was a capital crime. To prison

* Eccles. Researches.

he was committed and on the same day he was tried in court. As it was necessary for some one to prosecute Servetus, Calvin employed one of his own family, Nicholas de la Fontaine, who, some say, had been a cook, others a valet, but whatever he had been he was now a preacher. Short as the notice had been Lafontaine was ready prepared, and an humble request was presented to the judges in which Servetus was accused of uttering blasphemies against God, of infecting the world with heresies and of condemning the doctrine preached at Geneva. Servetus presented a petition to the magistrate and council. The petition was rejected; the attorney-general said that the court ought not to grant the petitioner an advocate, because he himself was thoroughly skilled in the art of telling lies. Such was his deplorable situation. "Far from his own country, fallen into the hands of cruel strangers, all under the power of Calvin, his avowed enemy, who bore him a mortal hatred; stript of all his property, confined in a dark prison, and neglected till he was almost eaten with vermin; denied an advocate, and loaded with every indignity his enemies could invent. The last act of this melancholy tragedy was performed at Geneva on October 27, 1553. Calvin had drawn up the process against Servetus; the magistrates and council had pronounced sentence against him that he should be burnt alive; and on this day, with many brutal circumstances, the sentence was executed to the encouragement of Catholic cruelty, to the scandal of the pretended Reformation, to the offence of all just men, and to the everlasting disgrace of those ecclesiastical tyrants who were the instruments of such a wild and barbarous deed."* "Many," adds Robinson, "have pretended to apologize for Calvin, and what are his nostrums, which end in tyranny and murder, that the great voice of nature should be drowned in a din of vain babbling about him." "Servetus was not a subject of the Republic of Geneva; he had committed no offence against the laws of the state; he was passing peaceably on the road which lay through the city; he was not a member of any Reformed Church; he was a useful and honorable member of society; he was a man of unimpeached morality; he was then the admiration of numbers of good judges who afterwards pleaded his cause." Calvin's heart never relented at the recollection of that bloody deed. On the contrary, he justified it by publishing, after the execution, a book entitled "A faithful account of the errors of Michael Servetus." In this it is attempted to be proved that heretics ought to be restrained by the sword. Castalio, or Socinus, confuted this book. Beza answered justifying the doctrine of putting heretics

* Eccles. Researches.

to death. Several endeavored to sanctify the deed by Scriptural texts and godly words; and many have attempted to follow their example in doing alike. Some of them go so far as to attribute the burning of Servetus to a special judgment of God. Can the nicest critic discern the difference between this and the spirit and style of the Papal Inquisition? Is it not all the unrestrained outworking of the evil principle in man as we often had occasion to remark from examples before?

"The execution of this man," says Robinson, "occasioned a great many excellent and unanswerable treatises against persecution. Beza was offended because the authors said that he had published a book to justify the murder of heretics; whereas he had only written one to prove that they ought to be put to death. They called him a bloody man for exhorting magistrates to put men to death for religion; he retorted he had wished, and continued to wish, that the magistrates would serve them so." The apologists urged the example of Melancthon in proof of the justice of putting Servetus to death. "Melancthon himself," say they, "the most moderate and the mildest of all the Reformers, approves what has been done at Geneva." We may remark, if such were the spirit of the mildest of the Reformers, what kind of men must those have been, whom their most favorable historians acknowledged to be men of violent and haughty temper? Mosheim says: "The Anabaptists and those who denied the divinity of Christ, and a Trinity of persons in the Godhead were objects of common aversion, a ainst whom the zeal, vigilance, and severity of Catholics, Lutherans, and Calvinists were united, and in opposing whose settlement and progress those three communions, forgetting their mutual dissensions, joined their most rigorous councils and endeavors." This then was the practice of the Reformers, Lutherans, and Calvinists, to join hand in hand with the Papists, in shedding the blood of reputed heretics; and who of us, therefore, can pretend to say that these persecuting Protestant Reformers were not indisputably one in spirit, nature, and disposition with the priesthood of the mother Church of Rome? We cannot advance a plea in their behalf, as true Christians. The Protestant Reformers could encourage persecution and by their example, their principles and practice unite with the Papists in shedding innocent blood. Then, if we claim innocency and martyrdom for those who were tortured and put to death by Papal Inquisition, how can we rid ourselves of the idea that those who were the subjects of Protestant and Papal persecution combined were other than innocent men and martyrs?

The following is an extract written with Calvin's own hand to the Marquis de Poet, High Chamberlain to the King of Navarre:

"Sept. 30th, 1561. "Honor, glory and riches shall be the reward of your pains; but above all do not fail to rid the country of these zealous scoundrels who stir up the people to revolt against us. Such monsters should be exterminated as I have exterminated Michael Servetus the Spaniard." The persecuting spirit of Calvin was not confined to Switzerland, but extended far and wide beyond that country. Robinson says: "He and other foreign divines had many tools in Poland, particularly Prasnicius, a violent orthodox clergyman. With this man, and through him with the nobility, gentry and clergy, Calvin and Beza corresponded: and many divines of Germany and Switzerland, and even the synod of Geneva, sent letters and tracts into Poland, all justifying the murders of Gentilis and Servetus, and the necessity of employing the secular power to rid the world of such monsters as denied the Trinity and infant baptism. "The advice given by the consistory of Geneva to prince Radzivil is a most ignorant and impious attack on the liberties and lives of innocent men. They beg his highness, as the first in piety and dignity, to use his influence with the nobility of Poland to engage the Anti-trinitarians as they would Tartars and Muscovites." The point of this argument will be better understood if it be remembered that the Poles always regarded the Muscovites or Russians as their greatest enemies. In Poland, also, the Papists, Lutherans, and Calvinists united in one bond of cruelty to crush those who, for the sake of peace, had fled thither from the iron arm of persecution in other places. We here present to our readers two extracts of letters written by Andrew Dudith, of Poland, who had been excommunicated from the Church of Rome for heresy. His sentiments favored the Unitarian Baptists, a species of popular heretics, who had fled into Poland in order to enjoy that religious liberty which was denied them in other places. Dudith corresponded with many of the most noted reformers, and these extracts clearly discover the spirit by which they were actuated, and may serve to show the light in which that discerning man viewed the conduct of these persecuting Protestants.

"Tell me, my learned friend," says he to Wolf, "now that the Calvinists have burned Servetus, and beheaded Gentilis, and murdered many others; having banished Bernard Ochim, with his wife and children, from your city in the depths of a sharp winter: now that the Lutherans have expelled Lasco with the congregation of foreigners that came out of England with him, in an exceedingly rigorous season of the year, having done a great many such exploits all contrary to the genius of Christianity; now, I ask, how shall we meet the Papists? With what face can we tax them with cruelty? How dare we say our weapons are not carnal? How can we any

longer let both grow together until the harvest? Let us cease to boast that faith cannot be compelled, and the conscience ought to be free." "You contend," says he to Beza, "that Scripture is a perfect rule of faith and practice. But you are all divided about the sense of Scripture, and you have not settled who shall be judge. You say one thing, Stancarus another. You quote Scripture, he quotes Scripture. You reason, he reasons. You require me to believe you. I respect you, but why should I trust you rather than Stancarus? You say he is a heretic, but the Papists say you are both heretics. Shall I believe them? They quote historians and fathers, so do you. To whom do you address yourselves? Where is the judge? You say the spirits of the prophets are subject to the prophets; but you say I am no prophet, and I say you are not one. Who is to be judge? I love liberty as well as you. You have broken your yoke, allow me to break mine. Having freed yourselves from the tyranny of popish prelates, why do you turn ecclesiastical tyrants yourselves, and treat others with barbarity and cruelty for only doing what you set them an example to do? You contend that your lay hearers, the magistrates, and not you, are to be blamed, for it is they who banish and burn for heresy. I know you make this excuse; but tell me, have you not instilled such principles into their ears? Have they done any thing more than put in practice the doctrine that you taught them? Have you not told them how glorious it was to defend the faith? Have you not been the constant panegyrists of such princes as have depopulated whole districts for heresy? Do you not daily teach that they who appeal from your confessions to Scripture ought to be punished by the secular power? It is impossible for you to deny this. Does not all the world know that you are a set of demagogues, or, to speak more mildly, a sort of tribunes, and that the magistrates do nothing but exhibit in public what you teach them in private? You try to justify the banishment of Ochim and the execution of others, and you seem to wish that Poland would follow your example. God forbid! When you talk of your Augsburgh confession and your Helvetic creed, and your unanimity, and your fundamental truths, I keep thinking of the sixth commandment, "Thou shalt not kill."

If matters of fact can establish anything, then it is certain that the two principal pillars of the Reformation, Luther and Calvin, as well as their confederate reformers, were influenced by the same spirit of cruelty and injustice which had influenced the hierarchy of their mother Church and the tyrants of every age, from Diotrephes and the Alexandrian priesthood down to the same Luther and Calvin. And if, as it must be allowed, a reformation in the church was

needed, and for this reason should be approved so far as it is worthy of approval; still we are not obliged to approve either of the manner or measure in which it was effected, nor, as Dr. Mosheim himself confesses, to defend the moral characters of its instruments and supporters. These men instead of evincing in their lives the self-denying godly examples of the first promulgators of Christianity, developed, with doubtless much that was good, all that is evil in human character, and exhibited but little foresight and sound judgment in the constitution and fabrication of their system. And thus it was that they effected to make the image to the beast which had the wound by a sword, and did live, after the model represented in Rev. XVII.

The first change of importance which the Protestant Reformers established was that which went to supply the office of the Pope; without which the Reformation must have appeared essentially deficient. Universal experience had confirmed the necessity of having a supreme head, a central supreme judge, the authority of which all would acknowledge. A body without a head is a monster in nature, and no less so in civil and religious society. The titles, offices, and powers of the Pope or universal father were not called in question; but it was professedly for the perversion of the sacred office, the abuse of power and the false application of titles that the reformers protested against and separated from the Church of Rome.

Doubtless all parties then agreed that the Church ought to have a Lord God, a God on earth, a judge of all controversies, etc.; but the Protestants denied that the dignity belonged to the bishop of Rome; it was therefore their task to point out to whom it did belong.

It must be a matter of the greatest importance which causes a nation to change its God. The high pretensions of the Roman pontiff as the vicegerent of God on earth were not to be supplanted by trifles. He had too long bewitched the people, giving out that himself was some great one, and had gained too deep an interest in the faith of the multitude to be successfully rivalled at once by a monk or a friar.

Their powerful and superstitious empire had for ages been accustomed to receive the word of God, as they supposed, from their prime bishop, their apostolic vicar, by whom kings reigned and princes decreed judgment. Of course when his authority was set at nought by men of an inferior rank, it behoved them to furnish the people with the *true Judge of all controversies*, the true oracle on earth, which should deliver the true word instead of the old false one. And what could the *natural sagacity* of man devise so suitable for this purpose, as those sacred words which had descended from Moses

and the prophets, from Christ and his apostles, and which the most ancient Catholic churches received from the learned fathers, and which Augustine and other great saints had acknowledged and denominated the canon of Scripture?

When the Reformation commenced, it is said, "the ignorance of the priests was extreme. Numbers could not read, and the very best seldom saw the Bible. Many doctors of the *Sarbonne* declared and confirmed it by an oath, that though they were above fifty years of age, yet they had never known what a New Testament was." *

Luther never saw a Bible till he was twenty-one years of age and had taken a degree in arts. Carlostadt had been a doctor of divinity eight years before he had read the Scriptures. Now when these very sagacious doctors had discovered these inestimable records of truth, it is not easy to imagine how great a field of reformation they would naturally present to their view in their then conflicting circumstances. And assuredly there could be nothing found within the comprehension of human reason which would so naturally and so properly fill the place of that great tribunal, the Roman pontiff, as that which both the old and the new church allowed to be the word of God, the oracle of God on earth. This most worthy rival of the Roman pontiff did not long elude the notice of the reformers; therefore their appealing to a general council may have been but a mere evasion to serve their purpose for a time; their grand appeal is more emphatically said to have been to the "Word of God." The Scriptures had all along been preserved in the Catholic Church according to the edition formed in early times, and never, as yet, had been generally recognized as of any authority, only as they were expounded and applied by those who were called church guides. But in the hands of the reformers they were destined to a higher, a more legitimate and proper use. They were destined to be not only the tribunal at which religious questions and controversies should be decided, but when properly translated and interpreted they were also to enlighten and liberalize the nations. So important an office, however, could never have been assigned to a book which had for hundreds of years been in use, and at the discretion of men, without its being thoroughly corrected and *reformed;* hence the Scriptures had to undergo a new translation, which Luther set about in the year 1521, and which, he being afterwards assisted in his work by Aurogallus, a profane author, was accomplished after a little while. It will be proper to notice here some of the uses to which the reformers put this new judge of controversies, or what

* Eccles. Researches.

they called "The voice of our only God," * and see how it came to obtain such a high degree of credit among the kings and priests of the reforming parties.

King Henry VIII. had taken to wife Catharine of Aragon, his brother's widow, the mother of Mary who was afterwards queen; but growing weary of so aged a consort, he applied to the Pope for a divorce, which the Holy father refused to grant. Henry being much perplexed thereabout, and hearing of the great wisdom of Mr. Thomas Cranmer, a fellow of the University of Cambridge, he sent for him to help him out of the difficulty. Cranmer had luckily before become acquainted with Luther's "Word of God," and by its power, in the hands of that dexterous doctor, Henry was finally released from Catherine, and launched into a sea of licentiousness. Cranmer, however, first advised the King to consult all the principal Universities of Europe upon the question as to the validity or the non-validity of the marriage; and they all rendered a decision favorable to the divorce, with the exception of the Universities of Oxford and Cambridge. These, however, finally came also to a like decision favorable to the King, as well as the Convocations both of Canterbury and York, which pronounced the King's marriage invalid, irregular, and contrary to the word of God, which no human power has authority to dispute. Cranmer also exerted his influence to have the consent of the Universities given to Henry's supremacy over the Church of England instead of the Pope's. He also himself became under Henry, Archbishop of Canterbury. After his second marriage, Cranmer had the honor of martyrdom conferred upon him by the Protestants, having been burned at the stake by the Papists, in the reign of Queen Mary.

Bishop Cranmer, when on his trial, being accused of perjury, retorted the same charge upon his Papist judge the Bishop of Gloucester. "And you, for your part, my lord, are perjured; for you sit judge for the Pope, and yet you did receive your bishopric from the King; you have taken an oath to be an adversary to the realm." To which his lord and judge replied: "You are the cause that I did forsake the Pope, and did swear that he ought not to be Supreme Head, and gave to King Henry VIII., that he ought to be, and this you made me do." Cranmer replied: "You report me ill, and say not the truth, and I will prove it here before you all. The truth is that my predecessor, Archbishop Warham, gave the Supremacy to King Henry VIII. and said that he ought to have it before the bishop of Rome, and that God's Word would agree therewith. And upon the

* Scotch Confession, Art. XX.

same, was there sent to both the Universities of Oxford and Cambridge, to know what the Word of God would do, touching the Supremacy, and it was reasoned upon and argued at length, so at the last both the Universities agreed to set their seal, and sent to King Henry VIII., to the Court, that he ought to be the Supreme Head and not the Pope." Thus, the Word of God was made by the Protestants instrumental in introducing the reformation into England. But could there have been a more presumptuous abuse of the name and Word of God, than to be thus used by such licentious and wicked men, as a pretext for carrying out their political intrigues, and their selfish designs? Whether or not will hereafter more fully appear. But how glaringly do they expose their deceitful and false foundation, when they acknowledge that they had to send to their Universities to know what the Word of God would do! And after they had "reasoned upon it, and argued at length," and found which side of the arguments had the most votes, then they impiously set to their seal what the Word of God did! And would it not be truly wonderful, if in the circumstances, there could be a man found in the University, who possessed courage enough to support his conscience in casting his vote against that merciless tyrant Henry VIII?

Nothing could furnish the reforming doctors with a more popular objection against the Pope, than his universal law concerning the celibacy of the clergy, and the corruption of manners and morals which flowed from the Papal establishment. And after reasoning upon it, and arguing the matter at length in their independent and literal sense, they set to their seals that it was more consistent to follow the carnal Corinthians openly than to pretend to be followers of St. Paul, while living in the gratification of their carnal nature. And this has been their universal law and practice ever since, in opposition to the decrees of their Mother Church.

In the debate the Protestant priesthood charge their ancestors, the Popish clergy, with the vilest hypocrisy, and that they are the very ones who departed from the faith, giving heed to seducing spirits and doctrines of devils; speaking lies in hypocrisy, having their conscience seared as with a hot iron; forbidding to marry and commanding to abstain from meats; that they are the false Christs and the false prophets, the wolves in sheep's clothing, the dogs and sorcerers, and hypocritical liars, and all the base characters spoken of in the New Testament; in fine, that the Romish Church is the horrible harlot, the church malignant.* On the other hand the Popish doctors, who, from a pretended apostolic succession, antiquity, and

* Scotch Confession, Art. XVIII.

universal authority claim the pre-eminence, after very plausibly denying that they forbid to marry, and showing that marriage is, nevertheless, held in the highest respect by the Church, as one of the seven Sacraments, "a conjunction made and sanctified by God himself," retorts back upon the Reformers the same charge of apostacy with all its base and licentious fruits. And from the history of their origin and their whole proceedings it would appear that the Reformers had no reason to refuse taking to themselves every base epithet which they had applied to the Popish doctors by whom they had been consecrated.

How far the first Reformers renounced both law and gospel and every obligation professedly held sacred by their mother Church in relation to chastity, and how wide a door they opened for licentiousness, is sufficiently manifest from their own histories. When Dr. Carlostadt broke his solemn oath of perpetual chastity which he had made to God, what kind of a reforming spirit did Luther manifest? In his letter to Amsdorf, he very plainly shows what his soul was most intent upon promoting, as appears from the following words: "The nuptials of Carlostadt please me wonderfully. I know the girl. The Lord strengthen him in the good example of restraining and lessening Popish licentiousness." But as Carlostadt put off his veil of Popish hypocrisy and made a bold provision for his licentiousness, it was accounted a good example, and Luther himself soon followed it. He married a woman whose name was Catharine Bora, by which act both of them broke their solemn vows of continency, which they had made before God. "Even his most devoted followers," says Dr. Robertson, "thought this step indecent, at a time when his country was involved in so many calamities, while his enemies never mentioned it with any softer appellation than that of incestuous or profane."* Some might be inclined to excuse Luther, by pleading his former ignorance while under the reign of superstition; that, however, would furnish but an unreasonable excuse, while he is represented as a man of such uncommon parts. Had he been forced to take such a vow, it would have naturally altered the case, but he had done it deliberately, from his own free choice, and that from the most solemn considerations. "The death of a companion killed by lightning at his side in a violent thunder storm, made such impression on his mind as co-operated with his natural temper in inducing him to retire into a convent of Augustinian friars, where, without suffering the entreaties of his parents to divert him

* History of Charles V., Book IV.

from what he thought his duty to God, he assumed the habit of that order.*

"John Calvin was originally designed for the Church and had actually obtained a benefice;" of course he must have come under the common oath of continence. Yet he did not remain subject to his solemn oath; for "he married the widow of an Anabaptist at Strasbourg." Theodore Beza, Calvin's companion and successor, contributed no little to this part of the Reformation both by his practice and his writings. Robinson says that "thirteen years after his conversion he published a collection of Latin poems, the most lascivious that can be imagined. There is one epigram which in licentiousness surpassed anything that the most unguarded debauchees have ever ventured to offer to the public eye."

From such reforming priests let us descend to the princes, and see how far their popish licentiousness was restrained or lessened by their reformed gospel. It has been observed that Henry VIII. obtained a divorce from Catherine his wife, who was formerly his brothers's widow; upon which he married Ann Boleyn, a woman of respectable family and connexions. Her he afterwards had beheaded, under pretence of adultery, but really to get her out of the way of another woman whom he had set his heart upon. This was Jane Seymour, whom he next married, and who died in child-bearing. Again he married, Ann of Cleves, whom he also divorced, and in her place married Catharine Howard. Her he beheaded. And his sixth and last wife was Catharine Parr. Such were some of the fruits of that good example which the first reformers set their followers, and which was sanctioned by their universities, which set to their seal that this same Henry should be supreme head of the Church instead of the Pope; and such was the example of unrestrained licentiousness and butchery which this supreme head of the Church openly manifested, as, perhaps, was never equalled by any one who bore that title before him. In tracing the progress of the Reformation in England we find Archbishop Cranmer making quite a conspicuous appearance. When on his trial in the reign of Queen Mary he was charged by Martin, a popish doctor, that "being yet free and before he entered into holy orders he married one Joan Black or Brown of Cambridge." That he married there one Joan, this he granted. That "after the death of the aforesaid he entered into holy orders, and after that he was made Archbishop by the Pope. That he, being in holy orders, married another woman as his second wife, named Ann, and so was twice married. That in the time of King Henry

* Hist. of Charles V., Book II.

VIII. he kept the said wife secretly and had children by her.* This he also granted, affirming that it was better for him to have his own than to do like other priests, holding and keeping other men's wives." Martin, "Did you swear obedience to the see of Rome?" Cranmer, "Indeed I did once swear unto the same." Martin, "Yes, that you did twice, as appeareth from records and writings here ready to be showed. At your consecration you took two solemn oaths for your due obedience to be given to the see of Rome; to become a true preacher or pastor of his flock; yet contrary to your oath and allegiance, for unity, you have sowed discord; for chastity, marriage and adultery; for obedience, contention, and for faith you have been the author of all mischief." "What doctrine taught you, when you condemned Lambert, the sacramentary, in the King's presence at Whitehall?" Cranmer, "I maintained then the papist doctrine." Martin, "Then from a Lutheran you became a Zuinglian, and for the same heresy you will help to burn Lambert the sacramentary, which you now call the Catholic faith and God's word." From these short hints it is easy to perceive who they were that answered to the character of apostates from the faith and practice of the gospel. Or may we think that a vow or oath is of so little importance, that for the gratification of carnal lust it may be broken with impunity? Therefore Martin, with the highest Catholic authority, addresses Cranmer as follows: "Christ foretold there should come against his church ravening wolves, and false apostles. But how shall we know them? Why, Christ teacheth us, saying: By their fruits ye shall know them. What are their fruits? St. Paul declareth: After the flesh they walk in concupiscence and uncleanness, they contemn power. Again, in the latter days there shall be perilous times. Then shall there be men loving themselves, covetous, proud, disobedient to parents, treason workers. Whether those be not the fruits of your gospel I refer to this audience: Whether the said gospel began not with perjury, proceeded with adultery, and ended in conspiracy." So much then did the Protestants gain by endeavoring to prove that the Papists forbid to marry, in order that they might be released from every obligation to chastity, and take full liberty in their licentious practices; so that in this respect they may perhaps be thought to have reformed from bad to worse.†

The Geneva and Scotch confession of Faith pointedly maintains

* The criminality of this charge is founded on his violation of his oath of continency which he had taken as an ecclesiastic.

† This matter, as to whether priests should marry or practice celibacy, is one which might well be left to the discretion of themselves individually. They will find enough in the New Testament to guide them in this matter; but they will find that this rather inclines to celibacy where it can be practised consistently with practical godliness.

that: "A politic magistrate belongs to the church to whom it appertaineth to root out all doctrine of devils and men, among which are ranked free will, vows of single life, etc., the punishment whereof, although God oftentimes deferreth in this life, yet after the general resurrection, when our souls and bodies rise again to immortality, they shall be damned to unquenchable fire." There certainly appears to be system in this: and there appears also a good deal of dark-mindedness and uncharitable self-confidence in these saintly Calvinists, who condemn to eternal torments all who do not believe as they teach. Among other things which they say are to be utterly suppressed and abolished are vows of chastity and difference of meats for conscience sake, and affirm that "all maintainers of such abominations should be punished with the civil sword." And further, what they decreed by way of prohibition, or otherwise, they were able also to execute by their secular magistrates, so that their kirks and kingdoms should be wholly purged, as they expressed it, "from all idolaters and heretics, as Papists, Anabaptists, and such like limbs of Antichrist." To this may be added the public form of prayer of the English establishment: "Almighty God, from whom all power is derived, we humbly beseech thee to bless thy servant, the Lord Lieutenant of this kingdom, and grant that he may use the sword which our Sovereign (or Dread Sovereign) Lord the King hath committed into his hands for the protection of the true religion, established amongst us." We can easily perceive the inconsistency of offering up prayers to the Deity that he may protect and promote the peaceable religion of Jesus, by the terrors of the civil sword. But the religion established by the reformers differed essentially from that of the Gospel. They, in refusing nothing which tended to gratify their carnal lusts, rejected the self-denying religion of the Gospel altogether, and attempted to sanctify by the word of God and their prayers, that which in itself was evil and corrupt; which was only an addition to their hypocrisy, and gave the creature of God the utmost occasion to groan under bondage, while enslaved to their erroneous and corrupt system.

The following is an extract from a solemn confession of sins, found in the "Westminster Confession of Faith:" "We," that is, the reformed Calvinists, "noblemen, barons, gentlemen, burgesses, ministers of the Gospel, and commons of all sorts, do humbly and sincerely, as in His sight who is the searcher of hearts, acknowledge the many sins and transgressions of the land. We have done wickedly, our kings and princes, our nobles, our judges, our officers, our teachers and our people, and have broken all the articles of the 'Solemn League and Covenant' which we swore before God,

angels and men. We have been so far from endeavoring the extirpation of profaneness, and what is contrary to the power of godliness, that profanity hath been much winked at, and profane persons much countenanced, and many times employed, until iniquity and ungodliness hath gone over the face of the land as a flood. Nay, even those who had been looked upon as incendiaries, and upon whom the Lord had set marks of desperate malignancy, falsehood and deceit, were brought in as fit to manage public affairs. Nay, many of the nobility, gentry and burgesses, who should have been examples of godliness and sober walking unto others, have been ringleaders of excess and rioting.

"Albeit, we be the Lord's people, yet to this day we have not made it our study that judicatories should consist of, and places of power and trust be filled with, men of blameless and Christian conversation; by which it hath come to pass that judicatories have been the seats of injustice and iniquity.

"It were impossible to reckon up all the abominations that are in the land; but the blasphemy of the name of the Lord, swearing by the creatures, profaning the Lord's day, uncleanness, drunkenness, excess and rioting, vanity of apparel, lying and deceit, railing and cursing, arbitrary and uncontrolled oppression, and grinding the faces of the poor by landlords and others in place and power, are become ordinary and common sins. There be many, who heretofore, have dealt deceitfully with the Lord, in swearing falsely by his name."

What need of any more comment? In its public confession this church sets forth its own character, exhibiting every mark of false-hearted hypocrisy in all the New Testament. From all that we have seen it is the most manifest judgment of truth that the reformers and the reformed did, in a large degree, fill up those characters of Antichrist described before in the New Testament, who profess to know God, but in works deny him, being abominable and disobedient and to every good work reprobate. And thus the second beast exercises all the soul-destroying power of the first beast before him.

"If we inquire from what articles of faith above or against our reason the Reformers have enfranchised their followers (for such enfranchisement is a benefit so far as it is compatible with truth and piety), we shall rather be surprised at their timidity than at their freedom. With the Jews they adopted the belief and defence of all the Hebrew Scriptures with all their prodigies apparent or real, from

the garden of Eden to the visions of the prophet Daniel; and they were bound like the Catholics to justify against the Jews the abolition of a divine law. In the doctrines of the Trinity and the Incarnation the Reformers were severely orthodox; they freely adopted the theology of the four or six first councils; and with the Athanasian creed they pronounced the eternal damnation of all who did not believe the Catholic faith. Transubstantiation or the change of the bread and wine into the body and blood of Christ, is a tenet that defies, not only the powers of argument but pleasantry; but instead of consulting the evidence of their senses, of their sight, their feeling and their taste, the first Reformers were entangled in their own scruples, and awed by the words in which Jesus is represented to have instituted the Sacrament. But the loss of any mysterious doctrine of the Mother Church which the Reformers saw fit to dispense with was amply compensated by the stupendous doctrines of original sin, redemption, faith, grace and predestination which they strained from the Epistles of St. Paul. These subtle questions had, undoubtedly, been prepared by the Fathers and school-men; but their final improvement and popular use are due to the first Reformers, who enforced them as the absolute and essential terms of salvation. Thus far the weight of supernatural belief inclines against the Protestants; and many a sober Christian," says Gibbon, "would prefer to admit that a wafer is God, than that God is a cruel and capricious tyrant. The patriot Reformers," the same author adds, "were ambitious of succeeding the tyrants whom they had dethroned. They imposed with equal rigor their creeds and confessions; they asserted the right of the magistrates to punish heretics with death. The pious or personal animosity of Calvin proscribed in Servetus, the guilt of his own rebellion; and the flames of Smithfield in which he was afterwards consumed had been kindled for the Anabaptists by the zeal of Cranmer. *The nature of the tiger was the same, but he was gradually deprived of his teeth and fangs.*" *

Henry VIII., being desirous of cementing a union with the German Reformers, sent, in 1538, Christopher Mount to a congress which they held at Brunswick; but this ambassador made but little progress in his negotiation. The princes wished to know what were the articles in their confession which Henry disliked; and they sent new ambassadors to him who had orders both to negotiate and to dispute. They endeavored to convince Henry that he was guilty of a mistake in administering the Eucharist in one kind only, in allowing privates masses, and in requiring the celibacy of the clergy.

---

* Milman's Gibbon's Rome, ch. LIV.

Henry would not by any means acknowledge any error in these particulars; and was highly displeased that they should dare to prescribe rules to so great a monarch and theologian as he. He found arguments and syllogisms enough to defend his side of the question and he dismissed the ambassadors without coming to any conclusion. Jealous also that his own subjects should become so well versed in theology as to question his tenets, he used great precaution in publishing the translation of the Scriptures which was finished for him this year. He would only allow a copy of it to be deposited in some parish churches, where it was fixed by a chain; and he took care to inform the people, by proclamation, "that this indulgence was not the effect of his duty but of his goodness and liberality to them, who, therefore, should use it moderately for the increase of virtue, not of strife; and he ordered that no one should read the Bible aloud so as to disturb the priest while he said mass nor presume to expound the doubtful places without advice from the learned." In these measures it is seen the Church of England, with its supreme head, still held a middle ground between the Papists and the Protestants.

In the next year, 1539, he had the parliament to pass the bill of the *Six Articles*, or the bloody bill as it is justly termed by the Protestants. In this law the doctrine of the "real presence" was established, the communion in one kind, the perpetual obligation of vows of chastity, the utility of private masses, the celibacy of the clergy, and the necessity of auricular confession. The denial of the first article, that with regard to the "real presence," subjected the person to death by fire, and to the same forfeiture as in the cases of treason, and admitted not the privilege of abjuring; an unheard-of severity, says Hume, and unknown to the Inquisition itself. The denial of any of the other five articles, even though recanted, was punishable by the forfeiture of goods and chattels, and imprisonment during the king's pleasure; an obstinate adherence to error or a relapse was adjudged to be felony, punishable with death. The marriage of priests was subjected to the same punishment. Their commerce with women was, on the first offence, forfeiture and imprisonment: on the second death. The abstaining from confession and from receiving the Eucharist at the appointed times subjected the person to fine and imprisonment during the king's pleasure; and if the criminal persevered after conviction, he was punishable with death and forfeiture as in cases of felony. Commissioners were to be appointed by the king for inquiring into these heresies and irregular practices, and the criminals were to be tried by a jury. By this law the king laid his oppressive hand upon both Protestants and Papists;

and another law, passed by the same parliament, gave to the king's Proclamation the same force as to a civil statute, thus making him as absolute a despot as ever despot was.

In 1546 the king, who had been hitherto careful to keep the mass in Latin, was at last prevailed on, principally by Cranmer, to permit that the Litany, a considerable part of the service, should be celebrated in English; and by this innovation he excited anew the hopes of the Reformers who had been somewhat discouraged by the severe law of the Six Articles. One petition of the new Litany was a prayer "to save us from the tyranny of the bishop of Rome and from all his detestable enormities." Cranmer now employed his credit to draw Henry into farther innovations, and he took advantage of the absence of Gardiner, a prelate who was favorably disposed towards the old regime, and was now on embassy to the emperor Charles V.; but Gardiner having written to the king that if he carried his opposition against the Romish religion to greater extremities Charles threatened to break off all commerce with him, the success of Cranmer's projects was for some time retarded.

On the accession of Edward VI., the son and successor of Henry VIII., the more advanced reforming party came into power in England. Cranmer, being appointed one of the executors of Henry, became the principal guardian and instructor of young Edward. The Duke of Somerset, who became protector, had long before been regarded as a secret partisan of the Reformers; and being now freed from restraint, he made no scruple of discovering his intention to correct all abuses in the old religion, and to adopt still more of the Protestant innovations. "The protector," says Hume, "in his schemes for advancing the Reformation, had always recourse to the counsels of Cranmer, who being a man of moderation and prudence, was averse to all violent changes, and determined to bring over the people by insensible innovations to that system of doctrine and discipline which he deemed the most pure and perfect. He probably, also, foresaw that a system which avoided the extremes of reformation, was likely to be most lasting; and that a devotion merely spiritual was fitted only for the first fervors of a new sect, and upon the relaxation of these, naturally gave place to the inroads of superstition. He seems, therefore, to have intended the establishment of a hierarchy which, being suited to a great and settled government, might stand as a perpetual barrier against Rome, and might retain the reverence of the people even after their enthusiastic zeal was diminished or entirely destroyed." * This remark of Hume, that a

* Hume's History, Reign of Edward VI.

merely spiritual religion is fitted only for the first fervors of a new sect, we do not consider just. Behold, for example, the Mohammedan religion, which is very widely spread and established for over a dozen of centuries without any regular priesthood or spiritual hierarchy, and which is surely a spiritual religion, and we do not find that it is now more mixed with superstition than it was at its first promulgation. Also, Methodism in all its branches, which is likewise in effect a kind of Unitarianism (as is also Presbyterianism becoming now almost universally), and which is in some sense a spiritual religion, is not more mixed with superstition to-day than when it was first promulgated; but it is remarkable that its priesthood, in some rare cases, displays a spirit of intolerance corresponding to their ignorance and bigotry, and of self-aggrandizement, arrogance, and hypocrisy resembling that of a lordly hierarchy.* Moreover, Methodism as almost all other systems within Christianity, is further susceptible of improvement, for no object, whether it be of the sense or of the imagination, is to be worshipped. The more spiritual the worship the more acceptable to God, and the more permanent in its good effects.

"A committee of bishops and divines," says Hume, "was appointed by the council under the protector to compose a liturgy, and in the year 1549 they had accomplished the work committed to them. They proceeded in this undertaking on moderate principles, retaining as much of the ancient mass as the principles of the Reformers would admit, and indulging nothing to the spirit of contradiction which so naturally takes place in all great innovations; and they flattered themselves that they had established a service in which every denomination of Christians might concur." † The mass had always hitherto been celebrated in Latin, a practice which could not have been edifying to the people, but was useful to the clergy, in that it impressed the people with the sense of some mysterious virtue in these rites. But the Reformers pretended in some few particulars to encourage private judgment in the laity. And the translation of the liturgy, as well as of the Bible, into their vulgar tongue appeared more comformable to the genius of their sect; and this innovation, with the retrenching of prayers to the saints and of some superstitious ceremonies, was the chief difference between the old mass and the new liturgy of the Church of England. This form of worship was established by Parliament in all the Churches of the Kingdom, and a uniformity was ordained to be

* This statement is exceptional, not general, and is also applicable in some degree to all the other Christian systems whose priesthoods are not recognized hierarchies

† Hume, Edward VI.

observed in all the rites and ceremonies. The same parliament enacted a law permitting the marriage of priests, and in the preamble confesses "That it were better for priests and the ministers of the church to live chaste and without marriage, and it were much to be wished that they would of themselves abstain."

The doctrine of the "real presence," though tacitly condemned by the new liturgy and by the abolition of many of the ancient rites, still retained some hold on the minds of the people. And it was the last doctrine of popery that came to be pretty universally abandoned by the English. Bishops Bonner and Gardiner for inculcating this doctrine were committed to prison, and there were many other instances of persecution for non-conformity with the new religion derived from the bigotry and rancor of theologians.

"Though the Protestant divines," says Hume, speaking with reference to this time, "had ventured to renounce opinions deemed certain during many ages, they regarded, in their turn, the new system as so certain, that they would suffer no contradiction with regard to it; and they were ready to burn, in the same flames from which they themselves had so narrowly escaped, every one that had the assurance to differ with them. A commission by act of council was granted to the primate and some others, to examine and search after all Anabaptists, heretics, or contemners of the Book of Common Prayer. The commissioners were enjoined to reclaim them if possible, to impose penance upon them, and to give them absolution; or if these criminals were obstinate, to excommunicate and imprison them, and to deliver them over to the secular arm; and in the execution of this charge they were not bound to observe the ordinary methods of trial; the forms of law were dispensed with; and if any statutes happened to interfere with the powers of the commission, they were overruled and abrogated by the council."* Thus all were compelled to worship this image of the Romish system of religion. A woman named Joan Bocher, or Joan of Kent, accused of heresy, was committed to the flames. Afterwards a Dutchman named Van Paris, accused of the heresy then called Arianism, suffered the same cruel death. "These rigorous methods of proceeding," says Hume, "soon brought the whole nation to a conformity seeming or real with the doctrine and the new liturgy.—To dissent from the religion of the magistrate was at this time universally conceived and felt to be as criminal as to question his title, or rebel against his authority."

This state of things was changed by the accession of Mary, and

---

* Hume: Edward. VI.

the progress of the Reformation was retarded in England for four or five years, 1553–1558. She retaliated on the Protestants, and during her short reign many of the most eminent of them, including the bishops Hooper, Ridley, Latimer and Cranmer, were burned at the stake. On the accession of Queen Elizabeth in 1558, the Protestant religion was again restored. During her reign of 45 years, the nonconformists, the Papists in particular, suffered equal rigors as the Protestants did in the reign of Mary. Under this Queen, whom the Protestants of a later day have called "that bright occidental star," * it was decreed that whosoever, in any way, reconciled any one to the Church of Rome, or was himself reconciled thereto, was declared to be guilty of treason. To say mass was subjected to the penalty of a year's imprisonment and a fine of two hundred marks. The being present at mass was punishable by a year's imprisonment, and a fine of one hundred marks.† A fine of twenty pounds was imposed for being absent from church a month. A severe law was also enacted against Jesuits and popish priests. The most reliable historians, and some even of those who defend the Queen's measures, allow that in ten years fifty priests were executed, and fifty banished. This Queen, as her father, Henry VIII., appears to have had an absolute control of the parliament. "In so great awe did the commons stand of every courtier as well as the crown," says Hume, "that they durst use no freedom of speech which they thought would give the least offence to any of them." The same author says: "The Queen appeared rather more anxious to keep a strict hand over the Puritans; who, though their pretensions were not so immediately dangerous to her authority, seemed to be actuated by a more unreasonable obstinacy, and to retain claims of which both in civil and ecclesiastical matters, it was as yet difficult to discern the full scope and intention. Some secret attempts of that sect to establish a second congregation and discipline, had been carefully suppressed in the beginning of this reign; and when any of the established clergy discovered a tendency to their principles by omitting the legal habits and ceremonies, the Queen had shown a determined resolution to punish them by fines and deprivations; though her orders to that purpose had been frequently eluded by the secret protection which these sectaries received from some of her most considerable courtiers."

It is seen, therefore, that the English Protestant Church, as the Lutheran and others, followed the example of its Mother Church of Rome, in compelling all to conform to it. But the most powerful

---

* See Preface to King James' translation of the Bible.

† A mark equalled 13s. 4d. English; about $3.22.

and effective instrument of persecution, as well as the most perfect substitute for Papal cruelty, during the reign of Elizabeth, was the Ecclesiastical Court of High Commission, established by John Whitgift, the Queen's primate, in 1584. He appointed forty-four commissioners, twelve of whom were ecclesiastics, to visit and reform all errors, heresies, schisms, etc., to regulate all religious opinions, to punish all breaches of uniformity in the exercise of public worship; to make inquiry, not only by legal methods of juries and witnesses, but by any other means which they could devise, by rack, by torture, inquisition, by imprisonment, etc." When they found reason to suspect any person they administered to him an oath called *ex officio*, by which he was bound to answer all questions, and might thereby be obliged to accuse himself or his most intimate friends. The fines which they levied were discretionary, and often occasioned the total ruin of the offender, contrary to the old laws of the kingdom, by which this commission was not bound. The imprisonments to which they subjected any delinquent were limited to no rule but their own pleasure. "These ecclesiastical commissioners," says the historian,* "were liable to no control; in a word, this court was a real inquisition, attended with all the iniquities as well as cruelties inseparable from that tribunal.

The spirit of this bloody inquisition continued through the reign of King James I., who is canonized in the preface to the translation of the Bible, effected under his reign, as "The Most High and Mighty Prince James." "Under this reign," says Hume, "there was no toleration for the different sects.† Two heretics, under the title of Arians, were burned to death. A professor of theology, named Vorstius, a disciple of Arminius, was called from a German to a Dutch university, in the year 1611; and, as he differed from his Britannic Majesty, who prided himself highly upon his theological and scholastic learning, in some nice questions concerning the intimate essence and secret decrees of God, he was considered as a dangerous rival in scholastic fame, and was at last obliged to yield to the legions of that royal doctor, whose syllogisms he might have refuted or eluded. James, in other incidents of whose reign vigor was wanting, here behaved even with haughtiness and insolence; and the States were obliged, after several remonstrances, to deprive Vorstius of his chair, and to banish him from their dominion. The King carried his animosity against that professor no farther; though he had very charitably hinted to the States, "That, as to the burning of Vorstius for his blasphemies and atheism, he left them to

* Hume: Reign of Elizabeth.

† Hume: Reign of James I.

their own Christian wisdom; *but surely never heretic better deserved the flames.*" "It is remarkable," says Hume, "that at this period, all over Europe, except in Holland alone, the practice of burning heretics still prevailed, even in Protestant countries; and instances were not wanting, even in England, during the reign of James."

In all this we see that the monarch gave his influence to the new established religion, and caused that "as many as would not worship the image of the beast should be killed."

High Churchism, or Ritualism, was never carried to a higher pitch than by Bishop Laud, in the reign of Charles I., the son and successor of James. This King, a severely high churchman, endeavored to introduce the English mode of worship into Scotland, but met with such a determined opposition from the people there, most of whom were attached to the Presbyterian mode of worship, that he failed in accomplishing his object. To show the pitch to which bishop Laud brought affairs in the Church of England during his reign, we may give an account of the process by which that prelate consecrated St. Catharine's Church. On the bishop's approach to the west door of the church, a loud voice cried: "Open, open, ye everlasting doors, that the king of glory may come in!" Immediately the doors of the church flew open and the prelate entered. Falling on his knees, with eyes uplifted and arms expanded, he uttered these words: "This place is holy; the ground is holy; in the name of the Father, Son and Holy Ghost, I pronounce it holy." Going toward the chancel he several times took up from the floor some of the dust and threw it into the air. When he approached, with his attendants, near to the communion table, he bowed frequently toward it. And, on their return, they went round the church, repeating, as they marched along, some of the psalms; and then repeated a form of prayer which concluded with these words: "We consecrate this church and separate it unto Thee as holy ground, not to be profaned any more to common uses." After this, the bishop, standing near the communion table, pronounced many imprecations upon such as should afterwards pollute this holy place by musters of soldiers or keeping in it profane law courts or carrying burdens through it. On the conclusion of every curse he bowed towards the earth and cried: "Let all the people say, Amen."

The imprecations being all so piously finished, there were poured out a number of blessings upon such as had given or should hereafter give to it any chalices, plate, ornaments or utensils. At every benediction he, in like manner, bowed toward the east and cried: "Let all the people say, Amen." The sermon now followed, after which the bishop consecrated and administered the sacrament in

the following manner: As he approached the communion table he made many low reverences; and coming up to that part of the table where the bread and wine lay, he bowed seven times. After the reading of many prayers he approached the sacramental elements and gently lifted up the corner of the napkin in which the bread was placed. When he beheld the bread he suddenly let fall the napkin, flew back a step or two, bowed three several times toward the bread; then he drew nigh again, opened the napkin and bowed as before. Next he laid his hand upon the cup which contained the wine and had a cover upon it. He let go the cup, fell back, and bowed three times toward it. He approached again and, lifting the cover, peeped into the cup. Seeing the wine, he let fall the cover, started back, and bowed as before. Then he received the sacrament and gave it to others. And after many prayers said, the ceremony of the consecration ended. The walls and floor and roof of the fabric were then supposed to be sufficiently holy. Orders were given and rigorously insisted on, that the communion table should be removed from the middle of the area where it hitherto stood in all the churches except in cathedrals. It was placed at the east end, railed in, and denominated an ALTAR; as the clergyman who officiated received commonly the appellation of PRIEST. The clergy were rigorously compelled to observe every ceremony, and were suspended and deposed by the High Commission Court if they were found to neglect any of them. Oaths were also imposed upon the churchwardens by many of the bishops; and they were sworn to inform against any one who acted contrary to the ecclesiastical canons. The popish practices which were introduced into the Church during this reign had so scandalized the minds of the stricter Protestants that they zealously opposed them and gladly suffered for their principles. "All the severities, indeed, of this reign," says Hume, "were exercised against those who triumphed in their sufferings, who courted persecution and braved authority." * The Puritan and Presbyterian party attaining the majority in the parliament in the latter part of this reign, exercised, in their turn, considerable cruelties, beheaded Laud, who had been made Archbishop of Canterbury, as well as the King himself; and put to death a great number who were attached to the party of the King and Church. Oliver Cromwell and his son Richard, at the head of the parliamentary party, governed England for about a dozen of years, 1649–1660, at the end of which period Charles II., the son of the late king, was restored to the throne, and another series of butcheries were enacted upon the

* Hume: Reign of Charles I.

parliamentarians, especially those who were concerned in the late king's death.

By the course which the Puritans and Presbyterians pursued when they were in power we see that whatever be the doctrines men profess, however spiritual and free from idolatrous tint, and however fervent and enthusiastic these men be in their religious devotions and professions, they still, when they come into power, are not unlikely to enact like cruelties with other more formal and idolatrous religionists, though probably not to the same extent. And all these developments are simply the outworking of human nature, perhaps, in enthusiastic devotion, or in excessive zeal in supporting some favorite idea, or in bigotry or hatred, or personal animosity, or peculiarity of temper and disposition in individuals. They are the outworking of the principles of human nature which comprises in itself the two extremes of bad and good; and these principles are developed in actions, the motives of which are attributed to religion, or God, or something else, which latter are merely ideas and may mean really nothing more.

From the beginning of the reign of Henry VIII. down to after the time which we are now considering, say to the accession of William III., the rulers of England were distinguished for their cruelties in persecuting and killing their fellow-men, and this especially in support of an ecclesiastical system which they had established. They compelled all within the range of their power to bend to their idea, their will, or their caprice.

But what must we think of any religion which will use such unspeakably barbarous means to compel people to profess it, as have been employed by the Church of England, and some other branches of the reformatory system? What must we think of these thoroughly orthodox, Trinitarian, Catholic systems after all this? Men compelling others to worship the image which they pleased to set up, and which was after their ideal? A specimen of the barbarous decrees and tyrannical laws established in those times down to the reign of Charles II., may be seen in the Westminster Confession of Faith and National Covenant. We have seen therefore, how that he had power to give an influence to the image of the beast, "that the image of the beast should both speak and cause as many as would not worship the image of the beast to be killed." We have seen how that this was fulfilled to perfection literally in both the German and English reformed systems. But then this prophetic passage may have another and more spiritual meaning, a meaning allied to that of the passage in verses 13 and 14, where it it is said "he doeth great wonders (signs) etc., in the sight of the beast." This may refer to a spir-

itual power or influence which the reformed hierarchy would exercise, either arising from their superior knowledge or from their art, or from both of these combined, enabling them to communicate with each other or with whom they would spiritually,—that the image of the beast should speak spiritually as well as literally,—cause men to understand their ideas by spiritual communication in words or otherwise, even though they were absent from them, and produce signs in the sight, that is, in the imagination of any whose minds were weak enough to yield to their influence. This power of spiritually influencing, even to the extent of spiritual verbal communication, the reformed hierarchies exercise, or pretend to exercise, as well as the Roman Catholic. We do not assert that every member of these hierarchies, from the lowest deacon or presbyter up to the archbishop or the prince that sits on the throne, the supreme head of the Church, exercises or tries to exercise it, but we do say that the power of spiritually communicating, and of influencing for bad or good is in these systems, and that it is exercised by their priesthoods in general. Nor does this power of spiritually communicating and influencing belong to either one of the reformed systems, such as the Lutheran or the Church of England in particular, but it is inherent in all the systems, by whatever names they are called, and exercised to a greater or less extent by all the priesthoods. Let a person for instance live strictly in accordance with any one of these systems, and he may experience a pleasant favorable influence, together with a very discontented spirit, which last may arise to him from the erroneousness of the system to which he is attached; or he may possibly not have any experience in particular beyond that of an ordinary life from his being attached to this system, and may not experience any unfavorable influence working against him. But let him depart from this particular system of religion and act independently of it, or it may be somewhat in opposition to it, and he will be very likely to have full experience of an influence operating unfavorably to him or against him. This influence he may find to speak to him, yea, keep speaking to him, and he may find occasionally that others also, even entire strangers to him, have acquired some knowledge of him, which he has the strongest reason to suspect or may know positively, they could not have acquired otherwise than by spiritual communication; this knowlege, however, which may arise to these others from a dream or a vision, or a spiritual verbal communication or a transient idea passing through the mind, is not to be depended upon by those who have it, nor should it really count anything for or against the person with reference to whom it is or seems to be; the human being is above all dreams and visions and spiritual communications or phenomena, and

should be allowed to speak and act, and should speak and act for himself; and thus by his words and actions show forth what he is, or in other words, be justified or condemned; we should always judge the best of men until *they prove themselves* unworthy of our confidence.

This power of influence pervades all the reformatory systems and each reformed system in particular, as well as it does the Romish, or Greek, or other branch of the Catholic Church, or the whole Catholic Church in general. But each particular system within this Catholic or universal Church appears to have an influence which operates favorably to itself or against those that act unfavorably to it. Each of these systems is as it were a wheel within a wheel extending outwards, towards universality; and thus there is a war continually waging in the invisible spiritual world as well as in the visible natural world.* If this war is waged by invisible powers it is none the less real, producing often important effects. But if one will intelligently and on conscientious grounds separate from any of these religious systems, he should not yield again to it on account of the persecuting influence which he experiences; but should resolve, in all reasonable self-denial, to stand on the side of truth and godliness; this doing he will experience such strength, courage, and comfort as he never did in the system he has left. One should, however, in all circumstances exercise a strong unwavering faith in the power and benevolence of the Deity, which will not fail to produce excellent effects in and for him.

We see then what a strong, an oppressive, and an effective power was exercised by the two great reformed systems, Lutheran and Calvinistic, in compelling conformity to their respective establishments within their respective dominions. The invisible power of the priestly craft acted in accordance with the visible power of the secular government in compelling obedience to their religious systems. Thus, the nonconformists were killed not only literally by the civil power, but spiritually by the priestly power; so that the prophecy means that at the time when the reformed systems should be establishing and at other subsequent times all who would not conform to the legal beliefs and modes of worship should be so looked upon by the ruling authorities and laws as if they were dead carcases. In the reformed church in which we ourself was born and to which we have given our youthful attendance for some time, we have been accustomed to hear the power, the virtue, the antiquity, the apostolical succession of the ministry, sacramental grace, and the prestige of the Church proclaimed from the pulpit and dwelt upon much more largely in the discourses than simple faith in the one supreme and

invisible God with its attendant good works. This is so to a greater or less extent in all the branches of the reformatory system: but the further these branch systems become removed from the English and Lutheran models the more spiritual their worship becomes, although it is to be regretted, they all as yet hold to the same creeds as their fundamental doctrines. And now we will ask, how long are these things going to continue? How long will the infinite and glorious creator endure that the worship due to Him alone shall be given to the creatures of his hand? Is it not wrong to attract the attention of the worshippers from their Almighty omnipresent but invisible creator, and fix it upon the gaudy trappings and pompous ceremonies of man's invention, i. e., the decorations of the "image," the trappings of the "beast," and to treat them, who conscientiously refuse to give their attention to such things as if they were lifeless carcases? But it has been so in all the ages of history; the humble, intelligent worshippers of the true God, the despisers of the pomps, and pleasures, and fashions of the world, have been looked upon as the offscouring of all things, as the filth of the earth. So were the primitive Christians looked upon by the majesty of Pagan and Jewish established systems. So were the Paulicians, the Waldenses, the Albigenses and all the other heretics of Christendom looked upon and treated for over a dozen of centuries by the sublime majesty of the established orthodox systems of the Roman empire. And so contemptuously and cruelly were all the reputed heretics and nonconformists looked upon and treated by the reformed establishments. How long will it be, we repeat, before men universally, especially those who profess to be Christians, subdue in themselves the spirit of pride and selfishness, and cultivate the principle of godliness, developing all the graces of the true Christian character?

The 69th Article, Parliament 6th of James VI. of Scotland, declares "that there is no face of kirk, nor other face of religion than is presently at this time established within this realm, which therefore is ever styled God's true religion and a perfect religion, which by manifold acts of parliament all within this realm are bound to profess, to subscribe the articles thereof, the confession of faith, to recant all doctrines and errors repugnant to any of the said articles." "And all magistrates on the one part are ordained to search, apprehend, and punish all contraveners. That all kings and princes at their coronation shall make their solemn oath in the presence of God that they shall be careful to root out of their empire all heretics."

In the solemn League and covenant which was subscribed by the two houses of parliament and the assembly of divines in England as a compact between the Scotch and English nations at the time when

the Puritan and Presbyterian elements predominated in the nation in the latter part of the reign of Charles I.,* they bound themselves to preserve the reformed religion in the three kingdoms; to promote a uniformity in doctrine and discipline; to extirpate popery and prelacy; to maintain the privileges of parliament and the liberties of the people; to defend his majesty's person and authority in the preservation and defence of the true religion and the liberties of the kingdom, to discover incendiaries and malignants, that they might receive condign punishment, &c." This being read in the presence of both houses of parliament at Westminster, it was ordered that it should be complied with by all persons on the following Sunday in their respective parishes.

By the Act of Uniformity passed in the reign of Charles II. on the restoration of the king and the English Church, it was required that every clergyman should be re-ordained, if he had not before received episcopal ordination; should declare his assent to everything contained in the Book of Common Prayer; should take the oath of canonical obedience; should abjure the solemn League and covenant; and should renounce the principle of taking up arms on any pretence whatever against the king. The terms of subscription had now been made so strict and rigid, that the more scrupulous among the presbyterians and independents would not receive it, and about two thousand of the clergy relinquished their cures, preferring, for the most part, to rely for support upon the humane charity of society than renounce their principles, which it is observed that on other occasions they were seen to warp or elude.† Yet Charles II. was not as rigid an Episcopalian as his predecessors the English monarchs, and the objection that he made to professing and supporting the Presbyterian form was "that Presbyterianism, he thought, was not a religion for a gentleman," an expression which, we must allow, does not of itself reflect any discredit upon Presbyterianism. Thus we see, whichever party was in power, puritanical or prelatic, in the reformed dominions, an equal compliance was required from the nation to the then established religion.

We return to the prophecy again and find it to read thus: Verse 16: "And he causeth all, both small and great, rich and poor, free and bond, to receive a mark on their right hand or on their forehead." Under the heads of small and great, rich and poor, free and bond, are included all the inhabitants of a country. Therefore this verse is correctly rendered, "he (*i. e.*, the highest authority) causes all the people in his dominions to submit to this, that they, that is the law-

* Hume: Charles I.

† Hume: Charles II.

fully constituted authorities, ecclesiastical or civil, should give them a mark on their right hand or on their forehead. The fulfilment of this is contained in the conformity, voluntary or involuntary on their part, of all the inhabitants of the reformed dominions to the religion established therein by law. Upon this mark or their conformity to all the rules and regulations of the Church would depend their status as citizens. Non-conformity implied imprisonment, banishment or death. All this has been transacted in the nations in which the Reformation took place. In Lutheran or Calvinistic Germany and in other reformed countries of Europe as well as in Britain, all citizens were compelled to conform to the systems of religion established in them respectively.

But as to what the mark was particularly which should be imposed upon the right hand or upon the forehead there has been much surmising and research by the learned; many and good people have considered that the mark on the right hand is the ring imposed thereon in the marriage ceremony; and that the mark on the forehead is the sign of the cross made thereon by the priest in the ceremony of baptism in the Church of England, and the Episcopal Church sprung from it, in common with the Romish Church. In some of the Protestant churches, the person is baptized by the minister sprinkling a little water on the forehead, or by immersing the person beneath water and repeating the accustomed formula of words, that is, the person is baptized whether by immersion or sprinkling in the name, or into the name of the Trinity. But in the Church of England and the Episcopal Church, its offspring, together with sprinkling a little water on the forehead, the sign of a cross is made thereon and also the accustomed orthodox formula of words is used. This sign of a cross, however, being made merely with the tip of the priest's fingers, leaves no apparent mark, and only denotes that the baptized person is received into the Church, or, as it is called, the kingdom of Christ; and that the person is intended to be the servant or soldier of Christ, when he becomes able to judge for himself. We, the writer, having not got married, know not how they manipulate the ring in that ceremony; but some intelligent men have expressed the opinion that the conditions of this prophetical mark on the right hand were fulfilled in Lutheran Germany, in all being obliged to subscribe the Lutheran "Confession of Faith" with the right hand, or to swear to the same with the right hand uplifted; and in Calvinistic Britain by the people being required to swear to the terms of the international covenant with the right hand uplifted in the latter part of the reign of Charles I., as we have mentioned above. The latter would appear to be the better representation of the mark upon the right

hand; for although we read of men and women being tempted to marry, a temptation to which they should never yield irrationally and without mature consideration; and of the reformed priests being allowed to marry or abstain from marrying as they pleased, still we never learn that men and women in any nation or church were in general restrained to marry, and so get the ring as a mark on their right hand. But the prophecy means that all would be required to receive a mark upon their right hand or on their forehead. But more, the Anabaptists, for renouncing the mark on the right hand or on the forehead, were decreed to be rooted out of the Protestant dominions.* "Moreover, the civil and ecclesiastical powers ordain and command that their said Confession of Faith be subscribed by all his Majesty's subjects, of what rank and quality soever under all civil pains."

They caused all to receive the oath, all masters of universities, colleges and schools; all scholars at the passing of their degrees; and finally all members of the church and kingdom; thus comprehending under their mark both small and great, rich and poor, free and bond.

Verse 17: "And that no man might buy or sell save he that had the mark, (or) the name of the beast or the number of his name." After what has been stated it will not be difficult to understand this. It means that a state of things would exist when these forcible measures should be put in practice to compel universal conformity and compliance with the established ordinances, creeds and confessions of the national religions in which it might properly be said that those who could not be prevailed upon to conform, profess, or comply, that is, to receive the mark of this symbolic beast, either by a sign of a cross on the forehead at the baptism, or by signing a confession of faith, a university test, or the like, with the right hand, or by swearing to the terms of the international covenant with the right hand uplifted, "could not buy or sell," would be deprived by the law, or by the ruling power which was a standing law in those dominions, of all civil privileges, and condemned to suffer penalties or banished.

The reformatory mark (*χαράγμα*) of a Christian was always an outward ceremony, a sign of a cross, a subscription, an oath, or a profession; and so they caused all in their dominions, both small and great, to receive that Christian character or mark. All the masters and scholars, and ministers, such doubtless as made merchandise of the Gospel, as well as merchants in burgh and all who paid rent to the Kirk must receive the true Orthodox Christian "character," the sealing ordinance, the only mark of God's true religion. The

* Westminster Confession of Faith.

Reformers in North Britain in coming into power decreed "that the whole rent of the Kirk abused in papistry shall be referred again to the Kirk. That tithes, the uppermost cloth, the clerk mail, the peace-offerings, tithe ale; all friaries, nunneries, chanteries, chaplainries, etc., be reduced to the help of the Kirk: the deacons disponing them to the ministry; and, moreover, that merchants and craftsmen in burgh should contribute to the support of the Kirk." *

That man could not in this life rise to anything higher than himself, that he must continue to be fallen man, mere man, a daily transgressor of the commandments of God, was the distinguishing Protestant doctrine, and to this they must all subscribe, covenant and swear, and the seal of this character is their distinguishing point of communion.

Moreover, the mark on the forehead or on the right hand would especially indicate the slavery or entire subjection of mind and body into which mankind should be brought by this power; the forehead, symbolizing the mental or intellectual and rational faculties; the right hand, the principal organ of corporeal labor, the bodily faculties. The entire subjection of mind and body in the great mass of the people was actually achieved by the Greek and Roman Catholic Churches in all Christendom and maintained for many ages; and it had been accomplished also to a great extent, especially in the principal branches of the Reformed Church, the Lutheran and English system. The priesthoods, by the exercise of their arts, have brought men's minds into such subjection that they were afraid to use their reason to think independently about matters, lest the priest might know what they were thinking about—might be acquainted with their secret thoughts. This is so to a great extent to-day in all the Christian systems of religion. Men should never be afraid to use their reason; they should think as freely and as *well* as they please; but by their words alone and by their actions they shall be justified or condemned. The subjection of the minds of the people to the priests, so as to interfere with the exercise of reason or freedom of expression, is the surest sign of a triumph over reason, and the most effectual mark of the beast. Until men's minds become thus enslaved their bodies will most probably remain unsubdued; for the mind is the governor and director of the body, the latter follows and is obedient to the former. So men should, above all things, not neglect to use their reason freely, fearlessly, and aright, for it is the highest and noblest faculty with which man is endowed, and he should appreciate and use it, and not permit any man or men to enslave it and him

* Book of Discipline, ch. 17.

most basely with it. But while men freely use and cultivate their reason and follow the course which it leads them in, they should, at the same time, always remember to cultivate modesty and exercise charity.

Verse 18th and last: "Here is wisdom. Let him that hath understanding count the number of the beast, for it is the number of a man; and his number is six hundred three score and six." The wisdom here relates to what follows, and particularly to the enigma of the number of the beast. It means that it would require wisdom to understand it; that only the same spirit could understand it aright as that which inspired and actuated the prophet who foretold it; that few could understand it. In the explanation of this verse two things shall have to be distinctly and relatively considered, the mark and name of the beast, the number really being given. In chapter XIV., 11, the mark is called "the mark of the beast's name;" and in chapters XV., 2, XIII., 17, the number is called "the number of the beast's name,"; which according to the last clause of verse 18 of this chapter XIII. is in the original Greek χξς, which in English computation is 666. The ancient Greeks as well as the Romans used their alphabetic characters instead of figures to express numbers.

Thus the first character	χ	equals	600
" second "	ξ	"	60
" third "	ς=st	"	6
Which added together		"	666

And in the letters of our alphabet χ equals Ch.
" " " " " " " ξ " xi.
" " " " " " " ς " st.*

Which put together form Chxist, a specious resemblance of the name Christ.

The two first radical letters of the name Christ Ch. R., which are the first radicals of the mark, *Charagma*, and constituted the imperial monogram of the Christian Roman Empire, represent 700, the perfect number. The Ch, x, st, represent 666, an imperfect number, a triple falling away, (apostasy) from septenary perfection, as Wordsworth calls it. The early copies A and Vulgate write the numbers in full in the Greek; but B writes merely the three Greek letters standing for numbers, Ch, x, st. C reads 616, but Irenæus, one of

* The character ς is an abreviation for sti. or st., all of which denote the same number 6. [See an unabridged Greek Lexicon as to the numerical values, and equivalents in English letters of the Greek letters ς, ϛ, χ.]

the earliest and most learned of the Fathers, opposes this and maintains 666.

Thus, we see that Chxist is the name of the beast and 666 the number of his name. Let him that hath understanding to compute his pernicious doctrines, horrid blasphemies, and savage cruelties make the application.

A word as to the "mark." In the ancient languages, as in our own, a man's mark is the first letter of his name. If we ask a man to endorse any document, say, a bank-note, and he says he cannot write, we write his name and under it or over it he inscribes his mark, the initial letters of his name, or most commonly, and curiously enough, a character like a cross. And so the distinctive mark or seal of the beast, whether it be of ChRist, representing in a sense the complete Roman empire, or Chxist representing in a sense the complete Reformatory empire, we see is χ, or a figure sometimes written like a cross. But how entirely different is this false Christ or Chxist and his mark from the true Christ represented in the gospels and the mark of the true Christian character, a truly godly life! The true Christ is represented by the truly godly wherever or in whatever empire they are; the false Christ, or, as in the text, Chxist, by the ungodly, wherever they are.

But lastly, and in confirmation of what has been before said, it is stated in verse 18, that the number of the beast is the number of MAN, not only of a man as it is translated in our common version of the Bible, but of man. We remark there is a parallel passage in Rev. XXI. 17., where the same word, ἀνθρώπου is used also without the article in describing the dimensions of the new Jerusalem. If man represent the dimensions of the symbolic beast, man also represents the dimensions of the new Jerusalem, or redeemed man.

Therefore let him that hath understanding count the number of the beast, for it is the number of man, not only of some particular man as an individual; but of mankind, including both male and female. Then as the number of the beast is the number of man, so the character of the beast is the character of man, even beastly man in all his natural depravity, which he established, supported and applauded under a profession of the name of Christ, and his name under this profession is in the original Greek χ ξ ς, that is Chxist, which means the perverted Christ or Anti-Christ.

And as the dimensions of the new Jerusalem are the dimensions of man, not only of some particular man, but of mankind including male and female; so the character of the new Jerusalem is the character of the angel, which represents redeemed man, man though not freed from, yet exalted above human frailties, man living in the world

but not of it, understanding what he is, and keeping his inferior nature in subjection; and thus the true Christ is exhibited in the perfecting, and the perfected human character. This is the gospel idea fulfilled. But no human being, or being in any conceivable form, is to be worshipped. The infinite and invisible Deity, which is neither an object of the sense, nor of the imagination, is alone to be worshipped, with the speech and with the understanding, in spirit and in truth.

As the Jews limited the favor of God to their peculiar mark and their number, so did the reformed systems, and so do all the Christian world to their peculiar mark or profession; therefore the character and doom of both are well described by the prophet: "But ye are they that forsake the Lord, that forget my holy mountain, that prepare a table for that troop, and that furnish the drink offering to that number. Therefore will I number you to the sword; and ye shall all bow down to the slaughter; because when I called, ye did not answer, when I spake, ye did not hear, but did evil before mine eyes, and did choose that wherein I delighted not;—for (this) the Lord God shall slay thee, and call his servants by another name."* "If any man worship the beast and his image, and receive his mark on his forehead or on his hand, the same shall drink of the wine of the wrath of God, which is poured out without mixture, into the cup of his indignation; and he shall be tormented with fire and brimstone in the presence of the holy angels and in the presence of the Lamb." † This voice comes now direct from God to the worshippers of the beast, the dwellers in Babylon: "He will not always chide, neither will be keep his anger for ever." ‡

If our readers will now turn to the eighteenth chapter of this book of Revelation they will notice that the dominions of the second beast are included in the mystic Babylon, that sitteth upon many waters; which waters are explained to be, (ch. XVII, 15,) peoples and multitudes and nations and tongues, over which the woman ruleth; and that they are subject to a like destruction to that of the Eastern and Western empires, which destruction the increase of their wickedness is, we fear, fast bringing upon them, and which will come, sooner or later, if they turn not to the right way and live therein. There they will find a mercantile nation intimated (see v. 17 &c.,) which we cannot consistently apply to Rome or Constantinople at any period of their history; but refers, doubtless, to a great nation that would arise in the course of the ages within the dominions of the mystic Babylon, a nation distinguished for naviga-

---

* Isaiah, ch. LXV. 11, 12, 15. † Rev XIV. 9, 10. ‡ Psalm, CIII. 9.

tion, and whose dominions should extend far and wide. This nation may be called the characteristic seat of the second symbolic beast which we have been considering. In chapters XIV, XV, and XVI the second beast is especially mentioned; and in ch. XVIII, his overthrow seems to take place almost contemporaneously with that of the first beast, though it seems to be more prolonged, which may mean that this power would exist and flourish for many hundreds of years after the fall of the Roman empire of the East and West. These powers combining both the civil and religious branches were to be overthrown by secular and spiritual warfare; for in ch. XIX, 19, 20, 21, it says: "And I saw the beast and the kings of the earth and their armies gathered together to make war against him that sat on the horse," that is, the agencies of truth personified, "and against his army. And the beast was taken and with him the false prophet that wrought miracles before him, with which he deceived them that had received the mark of the beast and them that worshipped his image. These both were cast alive into a lake of fire burning with brimstone. And the remnant were slain with the sword of him that sat upon the horse, which sword proceeded out of his mouth; and all the fowls were filled with their flesh." The false prophet means the second symbolic beast, especially in its spiritual character; and his false prophecy mainly consists in his confidently filling people up with promises which they shall not ever realize; and in his manifold deceptions of them. The beast and false prophet being cast *alive* into the torments means that after these powers are subdued secularly and to a considerable extent spiritually, they will still exist in the world waningly, and suffering affliction while they are in subjection to the powers of truth, and obstinately persisting in their blasphemous doctrines and practices.

The sword which proceedeth out of his mouth has reference to the word of truth spoken by all God's true agencies for the conversion and enlightenment of mankind; and which is otherwise called the sword of the spirit, the word of God; God's true doctrine. And the white horse on which the rider is, denotes victory full and complete ultimately for the truth.

Babylon, as represented in ch. XVIII, includes not only the dominions and worshippers of the first beast, but also those of the second. But we have seen that these two symbolic beasts at their rise and during their progress were essentially one, being actuated by the same spirit, which all comprises characteristically the beast or orthodox Catholic Christendom, and in a wider sense mankind. Therefore the call is now as it ever has been to come out of the mystic Babylon, and, that is, *to be no longer partakers of her sins and of her*

plagues; and rather if need be rejoice in tribulation and affliction as the people of God, than enjoy the pleasures of sin and of delusion for a season.

CONCLUSION OF PART SECOND.

We repeat at the end what we have stated in the beginning of this book, that man comprises in himself the principles of evil and good; and that being a free agent he has it in his power to cultivate and develope either of these to an almost unlimited extent. If he cultivate and develope the evil he resolves himself into a being far worse than any wild beast, a fact of which our readers have had abundant evidence from history in this book. If he cultivate and develope the good, he becomes the more god-like, attains to more of the knowledge of God and of things divine, experiences a heavenly happiness in himself, is a benefactor of his race, and well-pleasing in the eyes of God. The cultivation and development of the good in human character implies self-denial and perhaps suffering, but with all this the testimony of a good conscience and a sense of the favor of God, which implies happiness. The cultivation and development of the evil also implies suffering, for vice, sooner or later, brings its own reward, and when the suffering comes to the vicious person, there is not likely to be to him any compensatory consolation of a conscience void of offence toward God and toward men; but rather a fearful expecting of the judgment and wrath of God, of which he finds himself deserving for his known transgressions and sins.

What a pitiable condition, then, is that of the wicked, sinning human being, whatever and however favorable his worldly circumstances are!

How desirable, in comparison, is the condition of the one who lives a holy life, a life of active godliness, even though such an one be poor as to worldly possessions, and even despised and persecuted by the wicked worldlings! Is it not therefore much better to cultivate and develope the good?

To be good and to do good individually and universally while at the same time cultivating an unwavering faith (and this in all circumstances in which we may be placed) in the power and benevolence of the Deity, who alone infinite, invisible, and omnipresent is to be worshipped with the speech and with the understanding, in spirit and in truth, is what will assure the knowledge and favor of God and the highest happiness of human beings. Written forms of prayer for modes of worship are plainly unnecessary, and, to restrain the wanderings of the mind while in the act of devotion, the eyes

and the thought of the worshippers might be directed toward the West. Thou shalt love the Lord thy God with all thy heart, and thy neighbor as thyself. Henceforth let love be the bond of the union of enlightened and regenerated mankind.

Finally, we may remark in closing that notwithstanding this fair and impartial representation of the fulfilment of prophecy in history, and notwithstanding the clearness and completeness of the demonstrations, and the moderateness of the language which we have used in the demonstrations and conclusions, (for, using plain language as the vehicle of our ideas, we did not mean to give offence to any human being or to any society of human beings, however distinguished or by whatever name called, well knowing that with all the evil there is, and always has been, some truth and goodness in all sects; and our design being to convey the truth to all with the utmost impartiality, candor and justice on our part,) that notwithstanding all this we repeat, there still may remain some who will not incline to agree with us in the general conclusions. There will, of course, be vast numbers who will never read this book, who indeed do not read any book; and there will be some who will read it through hastily and superficially, not dreaming of the impossibility of taking in and digesting in a few days the product of the careful study and labor of a lifetime; to these two classes or sorts of men we do not allude.

But speaking in general we may say that if, after having *perused* this book, some see fit to differ from its conclusions, of the correctness of which we have not the slightest doubt, it is not our intention to interfere with individual judgment, our desire being that all may intelligently exercise their judgment in coming to a knowledge of the subjects under consideration, and that when they shall have arrived at the truth concerning them they may abide in it and inculcate it.

As however, but few out of the mass of mankind understand religious or learned subjects sufficiently from the little attention they bestow upon them or have time to bestow upon them, the explanation of such subjects, especially theological subjects, devolves mainly upon Christian ministers who, giving most of their attention to them, should reasonably be supposed the most competent to explain them, and they should on their part, while recognizing their responsibility to God and man, set forth the truth to the people without any mixture of error or superstition, and show themselves faultless examples of practical godliness worthy of their imitation in every respect.* But, on

* A careful and impartial perusal of this book cannot fail, we are persuaded, to be of great benefit and use to Christian ministers.

the other hand, as there are some Christian ministers of very limited education, and consequently incompetent to derive or demonstrate their knowledge from the original sources, but have to deal it out at second hand (and sometimes it is noticeable this is done in an off-handed, wholesale way, no scholarly discernment being evinced) it is, we say, also reasonable that such should give a listening ear to the suggestion or advice of some intelligent member of their congregation or even some friendly outsider who may understand the subject much better than they do; that such should seek and receive instruction, whencever they can derive it in the spirit of meekness and honesty.

TEN BRIEF DISCOURSES, DIDACTIC, AND EXPLANATORY OF PROMINENT CHRISTIAN DOCTRINES, DESIGNED TO SUPPLEMENT THE PRECEDING, AND IN WHICH THE INTENDED IDEA OF THE GOSPEL RELIGION, OR OF THE TRUE CHRISTIAN RELIGION, IS MORE FULLY SET FORTH AND WILL BE MORE CLEARLY UNDERSTOOD.

On Faith and Works.

Epistle of James, ch. II., verse 20; "But wilt thou know, O vain man, that faith without works is dead."

Many are the creeds and confessions of faith among men. Many are the different opinions on religion entertained by human beings. Each Church, both of the Christian and the heathen world, has a creed or a faith of its own; and each individual of each of those Churches, is likely to have a somewhat different belief from those of his neighbors. All these creeds, all these beliefs, all these different opinions cannot be true. There must be some or many of them false, and some of them made up of truth and error, or, it may be, some of them the very opposite of truth. Hence, we gather that faith is often very different from fact. Faith may be truth; it may be a mixture of truth and error; or it may be the very opposite of truth. How important, therefore, it is that men should have and cultivate the true faith!

It is always commendable in human beings to exercise a strong, a trusty, and an unwavering faith in the power and benevolence of the Deity. It helps to the living happily, subjectively, and benevolently and beneficently objectively. The Deity is present everywhere, and a most important phase of his character is that he is infinitely good, and men's believing firmly in the power and benevolence of the Deity makes him for them powerful and good. Cultivate then an

unwavering faith in the power and benevolence of God. This is true faith, faith that has for its object truth and fact. The Hindoo prostrates himself before the wheel of Juggernaut's car to be crushed to death, believing that thereby he will attain an eternally blissful immortality; but his is a mistaken faith, a faith which prompts him to sacrifice life and all that is dear to him, for the possession of some imaginary object which he never can realize. Here his false faith causes him to destroy himself, and hence is seen the importance of having and cultivating the true faith. The Antinomian professes to believe that the practice of the moral law is not incumbent upon Christians, that men will be saved through faith in the merits of Christ, by their appropriating to themselves his righteousness, even while they neglect all good works. This is also a false faith, a faith which destroys men no less effectually, though differently, than that which prompts the Hindoo to throw himself under the wheel of Juggernaut's car, a faith which is exceedingly pernicious in its effects. The unenlightened votary of the Greek or Roman Church believes that by the performance of such an amount of penance, by the repetition of so many prayers, all told upon his beads, by the confession of his sins to his priests he will obtain remission of his sins, and be made meet to become a partner with the saints in light; his is also a mistaken faith, pernicious in its effects toward men, and dishonoring to God. The worldling believes that if he pays so much to his minister to do it for him, he has no need to pray or perform duties of active godliness himself, that he can, in short, serve God by proxy, while he wholly occupies himself in the cares, and pleasures, and fashions of the world. His is also a false faith, pernicious in its effects upon him and others, for each one must do his own part in performance of duties towards God and towards men, while living the life of active godliness, which is the only surety for salvation, the only road to happiness and to heaven.

Our text implies that though faith, true faith, is important to the human being, that there are other things also which are of equal importance for him to cultivate; and what are these things? Why, they are good works. "Wilt thou know, O vain man, that faith without works is dead." The doing is necessary as well as the believing, for it goes on to say, "Show me thy faith without thy works, and I will show thee my faith by my works," implying surely that good works are the necessary attendants of the true and living faith; "For as the body without the spirit is dead, so faith without works is dead also." We may, through faith, believe a thing to be in a certain state or condition and the thing may be just as we believe it to be. We may, for example, believe that a precious gift awaits us

at a certain place, and it may really await us there; but if the condition of our receiving it be that we shall have to come for it, then if we do not fulfil the condition and come and take it, what is the use of our believing it is there? We may gratify our fancy by thus believing, but we do not benefit ourselves. A man may essay to offer us a gift and may stretch forth his hand with it toward us, yet if we doubt his willingness or his intention to give it to us and do not stretch forth our hand to receive what he offers us, we shall not receive it. We must believe his willingness to give us what he offers us and must second our belief by the act of stretching forth our hand for the gift. Though the little book, the symbol of Divine light and knowledge, be in the right hand of him that sits upon the throne (Rev. Ch. V.), yet there it remains until the self-denying Lamb steps forward and takes it out of the hand. Action then, or good deeds, is just as necessary as faith, and the true index to the character of human beings, be their faith what it may, is that given in the Gospel: "By their fruits ye shall know them;" by their good works ye shall know the true Christians, the children of God; by the neglect of good works or the commission of evil deeds, the children of the wicked one are known. How important then that people act as well as believe, work as well as trust, do good as well as be good, in short, show their faith by their works!

Every human being has the option and power of cultivating and developing the spirit of goodness, the principle of which each one has in themselves, and may with the assistance and faith of God develop to an almost infinite extent. They have also the option and privilege of cultivating and developing the spirit of evil, the principle of which they also, as they well know, have in themselves, and may develope to an astonishing degree. This principle of evil is developed world-wide, and its cultivation appears to be more attended to on the whole than that of the principle of goodness and benevolence. And how pitiable, how miserable the character in which the principle of malevolence is cultivated and developed! How lovely in comparison is that in which the principle of benevolence is cultivated and developed in all the Christian graces; in the practice of humility, lowliness of heart, and contrition of spirit, of self-denial, love, meekness, gentleness, faith in the power and benevolence of the Deity, charity, temperance, and active, honest industry. The cultivation of these graces implies not only the denying but the subduing of all the malevolent affections, the crucifixion of the flesh with its affections and lusts, the bringing of the lust of the flesh, the lust of the eye, and the pride of life into subjection to the obedience of Christ; the denying ungodliness and worldly lusts, and the living

soberly, righteously, and honestly in this present world. The denying of the flesh with its affections and lusts, and the living a life of active godliness in the development of all the characteristic Christian graces, are the all-important things to practise and achieve; this is the great idea which the gospel sets forth and inculcates. There is joy in heaven over one sinner that repenteth, that is converted from a life of sinfulness to a life of active godliness; the angels rejoice over such a one; the redeemed among mankind experience a filial affection toward such a one; and God puts the spirit of his children in all their hearts, whereby they cry, Abba, Father! Such feel, fully experience themselves to be the children of God, and if children then heirs, heirs with God and joint heirs with Christ. To be heirs of God, is not that a prize worth seeking for, worth denying ourselves for? To be joint heirs with Christ, is not that worth seeking after?

Oh, that all would now begin to cultivate the principle of goodness, of benevolence, to develope the spirit of Godliness! Parents teaching their children to practise it, and, by their own practice, setting them the example; children and young men and young women being godly examples to each other, and vieing with each other in the practice of true virtue, and benevolence, and in the cultivation of all the Christian graces. Each one may do their own part of this. There is no valid reason why each and every one may not cultivate the true and complete Christian character in all its aspects and bearings; why each one may not exercise good works as well as cultivate the true faith, doing good to mankind and glorifying God in their body and spirit which are God's, Will not all who hear these words begin now to do as well as to believe, to believe as well as to do? Will not all everywhere practice and inculcate this doctrine? Thus, we shall have inaugurated a new era wherein God shall be glorified and worshipped in spirit and in truth. Then the world will present a brighter, pleasanter scene; our places of education, schools, academies, and colleges will be used for the cultivation of the principle of godliness, the development of the whole Christian character in the youth as well as for the culture and development of their mental faculties, and the acquisition of the sciences and the arts. Our counting-houses and all our places of business and resort will wear a better, a more pleasing aspect, when all shall practice righteousness and benevolence towards each other. Our men of wealth and influence will be forward to assist from their resources and examples all noble and godly enterprises, experiencing in themselves in thus doing, that it is more blessed to give than to receive, to countenance and assist good enterprises than to abstain from doing so.

They will all, in short, be forward not only to believe but to do, to perform good deeds at the same time that they exercise the true faith.

Many noble examples have we in sacred and secular history and in the people of our own time in which true virtue and benevolence were practised, in which faith in the power and benevolence of God, and good will and beneficence toward men, were exemplified. What has been done once by human beings may be done again, and the godly character that is developed and manifested in one human being, or in one class of human beings, may be developed and manifested in another. Let none despair then while they cultivate faith and good works, while they worship only the infinite and invisible Deity, which is neither an object of the senses nor of the imagination, in spirit and in truth, of being able to attain to a good degree of perfection in heavenly wisdom and knowledge, and of godliness of character. Let none suspect that while thus being, thus doing, they will not experience happiness in themselves, and diffuse happiness all around them by the influence of their example,—their faith and their practice,—which will be infinite in its effects for good. While all are anxious for the coming of the Millennium, let none expect that blessed era to be fully introduced unless they themselves do their part to bring it in. That long expected, happy era, eminently one of self-denial and active godliness among mankind, an era of life in the spirit and denial of the flesh, will only be fully introduced when each and all shall deny themselves ungodliness and worldly lusts and shall live the life of righteousness and holiness, the life of active godliness in the world. The true light now shines, but it will then more clearly, more fully shine. Let none imagine that the profession of any particular faith or creed, be it what it may, the being attached to any particular church, be it called what it may, or the being associated with any particular office or society whatever it may be called, or however respectable it may be deemed, will avail to save them from a pitiable condition of error and ignorance with respect to heavenly things, and a state of sin and of ungodliness in the world—being dead while they live here—if they do not with the profession of the faith also perform good works and show by their fruits that they know God and serve and worship him aright. Men should then cultivate firm and unwavering faith in the power and benevolence of God in all the circumstances of their life, even in the most trying and difficult, as well as the most prosperous and happy. This will enable them to live better and happier, and more actively zealous in the cause of God. We should love God with all our heart and soul and our neighbors as ourselves, which is the su-

preme law of action of all true religionists; and this active principle of love to God and man should be the bond of our union. We should all grow up into the gospel likeness of Christ, always imbued with and actuated by the spirit of Christ, and we should cultivate and develope in ourselves that perfect character as there represented. All should henceforth walk circumspectly, not as fools but as wise, redeeming the time, since the days are short and evil. We should individually and collectively do all the good we possibly can while we are on the active scene of this life, and always cultivate the lively faith and hope, that we shall live consciously, intelligently, and blissfully in the hereafter. My heart's desire and prayer to God, my friends, is that ye all may be and do thus. And I ask you that your earnest desire and prayer to God may be with mine that we and all mankind shall be and do thus. Let us rise above the world of sensuality, of folly, and of fleeting fashion, and live the life of sobriety, of holiness and of godliness in the spirit, and show, by our example, our precept and our practice, that we are God's children, and that we heartily desire all mankind to be sons and daughters of our heavenly Father.

On Providence and Predestination.

Romans, Ch. VIII, verse 28.

"And we know that all things work together for good to them that love God, to them who are the called according to his purpose."

This subject we shall consider under two heads: first, as to those that love God; and, second, as to those that are the called according to his purpose, or, in other words, them that are predestinated and elected to salvation. The moral world or the world of mankind may be considered as made up of two parts, namely, those that love God and live in obedience to his requirements, and those that love him not and do not order their life and conversation as he requires. It may also be considered as one whole, namely, mankind, one part of whom choose to love and obey God, and the other part of whom live and act in a contrary way and manner. Each and every human being has inherent in them the principles of good and evil, either of which they may cultivate and develope to an almost infinite extent. The cultivation and development of either of these is a matter of choice with the individual, that is, each rational being is a free agent, free to choose either the evil or the good course of life, free to be and to do either good or evil. They who choose to be good and to do good, to follow the godly course of life, are those alluded to in our text as them that love God and to whom all things work together for good,

and they are otherwise spoken of as the children of God. And they who follow the evil course of life, who are and do evil, either from negligence or deliberate choice, are they, on the contrary, who are called the children of evil, children of their father the devil, whom they serve and obey. The great majority of the human race are of this latter class who serve the devil and the world in a vast variety of ways. The small minority are they who love God, they who deny themselves ungodliness and worldly lusts, and live soberly, righteously and honestly in this present world. The character and law of God is written upon the face of nature and discovered in the pages of Revelation; in other words we read and understand the character of the Deity not only from nature, but also from the experience and the testimony of good men in past ages. A compendium of the law which God has imposed for the obedience of mankind is found in the Ten Commandments recorded in the Old Testament, and this law is confirmed and rendered of equal obligation upon mankind by the teachings of the New Testament. "Thou shalt love the Lord thy God with all thy heart and soul and strength, and thy neighbor as thyself" is the principal commandment of the Old Testament as well as of the New, a commandment which embraces in itself all the others.

But the love of God spoken of in the text comprehends the whole life of real and active godliness; it means the being good subjectively and the doing good objectively, the motive being love to God and for the advancement of his cause, not self-love or for self-aggrandizement. To them, therefore, all things, even things that seem perplexing and trying and vexatious and adverse, things that they would rather escape and be rid of, work together for good, to them, I say, who are actuated by this love and who live the life of active godliness. The true Christian life is sometimes considered a hard and trying one, embracing, as it does, self-denial, a foregoing of the lusts of the flesh and all worldly lusts, and sometimes, it may be, suffering persecution for truth and righteousness sake; for we read in the writings of the apostle Paul that they who will live godly in this present life shall suffer persecution. But with all this thorny self-denial and this bitter experience, it is a comforting thought to the children of God that these things, even these bitter experiences, are working together for their good. The more devoted they are to, and the more active in the service of God the stronger the opposition Satan will raise against them; but fully realizing that they are the children of God they know that all things are working together for their good; though Satan enrages the wind and the tide, the promise assures them the Lord will provide; when the enemy

is coming in like a flood the Spirit of the Lord will raise up a standard against him. It is a comforting thought, I say, to the true Christian, the child of God, that amid all the dangers, seen and unseen, through which he passes, amid all the trials, persecutions and snares from visible and invisible enemies, amid all the circumstances in which such a one is placed, whether they be adverse, adventitious or prosperous, all things are working together for his good; that amid all the apparently unfavorable dispensations of providence his heavenly Father still retains for him a benignant countenance, though concealed from his view. The life of the true Christian, in all its various phases and aspects, is beautifully depicted in the "Pilgrim's Progress" of John Bunyan, and this appears in its true light to all who rightly interpret that allegory. There it is seen that the child of God, although pressed down with the knapsack of his sins and transgressions, has to go forward in the character of a warrior, arrayed in the complete Christian armor, having on the shield of faith, the breastplate of righteousness, the helmet of salvation, and the sword of the spirit which is the true word of God, and that he has to fight strenuously and overcome all the enemies and opponents that appear in his way, a work in which, however, he is abundantly assisted by his leader and God. Hence the true church of God being made up of such self-denying and faithful soldiers is called the church Militant, that is, the fighting Church, the Church that fights its way into the kingdom of heaven, not with carnal weapons, for the weapons of its warfare are not carnal, but spiritual, and mighty to the pulling down of the strongholds of sin and Satan, but by faith and patience and perseverance in active godliness it overcomes all its enemies, seen and unseen; the Church that obtains a complete victory over the world with its pomps and vanities, its allurements and enticements; over the flesh with all its lusts and debasing seductions; and over the devil with all his powers and agencies visible and invisible; the church that presents itself before the throne of God arrayed in the white robes of holiness and righteousness. Every child of God hath in his own breast this experience, which he derives from the course he pursues in his onward march toward heaven; and although there are scarcely two whose spiritual experiences are precisely alike, yet the experience of all is so much alike that that of one may be said to be, in some sort, a copy of the other's, that is, if they ever reach heaven they shall have to get there by following the example of their leader, the captain of their salvation, who, as represented in the gospel, was made perfect and conquered through self-denial; in short they shall arrive there only by pursuing the course of active godliness. There is no royal road to heaven; people need not

expect to be carried there on flowery beds of ease; no, they shall have to tread the path of self-denial and holiness and even suffer persecution for truth and righteousness sake, before they have attained to perfection in heavenly wisdom and knowledge, or are made perfect in godliness. Blessed are ye when men shall revile you and persecute you and say all manner of evil against you for truth and righteousness sake. Rejoice and be exceeding glad that ye are accounted worthy to suffer in the cause of God; for so the world has maltreated the good men of all ages that have been before you. Rejoice for this, that when ye are contemned and despised of the world, ye are recognized of God: when ye are excommunicated of the world, counted out of the world's fashionable society, ye are found of God and recognized as his children; ye realize yourselves to be fellow-citizens with the saints and of the household of God. The children of God always rejoice in this, that they believe and know that all things work together for their good and that nothing that is really for their good will be withheld from them that live a godly life. The little boy or girl may sometimes desire a thing, which, if they receive, may prove detrimental to them, nay, may even do them a positive injury; but if their request be not granted they may feel so hurt that they will sit sobbing and crying, and brooding over the slight or injury which they imagine themselves to have received. Even so it is sometimes the case with those of little experience in the true Christian life, those who have but lately begun to live the life of active godliness, who are apt fondly to imagine that they can, at the same time, serve God and the world; that they can in the common way of expressing it, take both sides of the road with them. This they soon find to be a delusion, and will see that they cannot serve God and the world at the same time, and that they ought not to feel that they are injuring themselves by denying themselves the pleasures of the world, or that they are slighted and contemned and rebuked and reproached of the world; knowing that the friendship and the pleasures of the world are at enmity with God, and that they cannot serve God and the world at the same time, they receive this contempt and persecution of the world as the best of omens, as indicating that they have made, and will make progress, in the true Christian course. Patiently and cheerfully enduring and persevering in the course of godliness, they realize that even when the adverse winds of the world's evil influences are blowing hardest against them, when envy and pride and selfishness and all the powers and agencies of the prince of darkness are, as it were, exerting their utmost for their destruction, to defame their character and to blot out their name among men, that even

then all things are co-operating for their good. From the beginning it hath not been heard that God ever proved false to them that trusted in him and lived the life of godliness. Falsity and deception spring from the devil and are characteristic of him.

But, as I have before intimated, the children of God patiently endure and cheerfully and contentedly suffer all that befalls them from all adverse influences, seen or unseen, while they are pursuing the true Christian course. Like the child that is denied of that which, if received might prove an injury to it, or that suffers from its parent a gentle chastisement for some fault or offence it had committed, they do not display a sullen and morose temper on account of the slights and contempt and persecution which they have received, or they imagine themselves to have received from the world; but they go on actively and perseveringly in the course of godliness, exhibiting always a cheerful and contented spirit, displaying all the graces of the true Christian character, being always exemplary in their life and conversation, and showing, by their whole spirit and deportment, that they do not regard themselves as serving a hard master, but that they rather regard themselves as conquerors of the world, having evercome it and keeping it in subjection, and that they feel it to be their duty to bring all men into the same position of conquerors of the world and heirs, yea, inhabitants of the kingdom of heaven. But instead of being discontented and dissatisfied with their lot they rather rejoice in that they are accounted worthy to suffer shame and persecution for the cause of God. So far as to them who, according to our text, love God.

The second head under which we have proposed to consider our subject is as to those who are the "called" according to his purpose. The word "called" in this connection is another term to set forth the idea contained in the expression "predestinated or elected to life or to salvation." God is omniscient, he knows all that has come to pass in the past, and he knows all that will come to pass in the future; the past, present and future are present to the all-wise God, to whom time is nothing, a thousand years being in his sight as one day, and one day as a thousand years. God is the ever and everywhere present being. All events in the natural world take place in accordance with the course of nature. Things in the moral world, or in that world which exists in relation to man as a free intelligent agent, take place generally as man will have them to take place; yet in some such way as that history repeats itself, the events of one age being a repetition of the events of a preceding age or of preceding ages. In this way the events which take place in the moral world are analagous to the events which take place in the natural world, in the

latter of which the events of one year are merely a repetition of the events which took place each previous year. Predestination or election then, when spoken of with reference to man, has rather respect to the foreknowledge of God than to predetermination on his part. For we are told that God willeth the repentance and salvation of all mankind, or, that he willeth that none should perish but that all should turn from their evil way and live. If, therefore, it be said that God wills or predestinates all things that come to pass, it is said that he wills and predestinates misery and destruction to the wicked, and we shall have a contradiction in terms, and logical contradictions, we know, imply untruth. Men's own wickedness and depravity bring evil and destruction to them. The very fact of man's free agency and consequent accountability teaches this. For if he be a free agent he has the power of doing either evil or good to almost any extent he will; and if he do the evil he will reap the fruits of his evil, for vice sooner or later is sure to bring its own reward, which will be his misery and destruction; but if he do the good he will experience happiness from the favor of God and of all good men, and a conscience void of offence toward God and toward men. If he be not a free agent he must, doubtless, be a being predestined to all that will happen to him in life, and if he lives a life of wickedness it must be said that God has willed and predestined him to that life of wickedness and consequently to destruction, and we shall again have a contradiction in terms which implies falsehood; for it is said that God willeth not the death of a sinner but rather that he may turn from his evil way and live, and that he has intended salvation for all men, not willing that any should perish, but that all should come unto him and be saved. It is plain, therefore, that man is either a free accountable agent or a predestined being, governed, for weal or for woe, in all that he does or that happens to him so long as he has an existence. But man is evidently a free agent, an accountable being, as all law assumes; he may, however, be predestined by his fellow man or men to a certain course, state or condition of life. A man, for example, may be condemned or predestined to the galleys or the mines, or the state's prison for the term of his natural life, in consequence of his violations of the laws of his country, but it is not God that condemns or predestines him: thus, it is his fellow-men and he himself through his transgressions, or they through a perversion of justice; that is the cause of this predestination. Also, a child, from the natural disposition of its parents, may be predestined to a good temper and disposition or to a sullen and morose or even wicked one; or he may be predestined to wealth and honor or to poverty and shame, according as he derives and inherits from his parents or from the circum-

stances of his birth and education. All this, therefore, implies and shows free agency in man, unless so far as men are predestinated by their own species.

But notwithstanding all that has been said there is still a sense in which predestination may be understood as it relates to God's government of mankind. This sense is derived from the omnipresence and omniscience of Deity who is always and everywhere present in essence and intelligence, and has his purposes to accomplish among men and in relation to them. Men are not all alike in character. The different nations differ from each other in a variety of ways. Even the individuals of the same nation or of the same community, and even of the same family and household, differ from each other in character, and that in many respects. They all differ from each other in physical appearance, and they differ just as much in their moral character, some of them being of good, others of bad moral character, and others again of all shades and degrees of moral character between these two extremes of good and bad. So it is analogously with the animals of different species or of the same species or with the trees or plants or herbs or minerals of different species or of the same species, they all differ from each other, respectively, in a variety of ways, so that even no two indivduals of any one particular species are exactly alike in every respect, in every point of view, from which they may be contemplated. Men, therefore, as all other beings, animate and inanimate, that pertain to the earth, have their differences of character, and as God makes use of men of all sorts of character, good and bad and middling, in that respect, to accomplish his purposes of benevolence or of justice among mankind, and as these men are sure to accomplish the purposes of Deity before they leave this earthly scene,—just as sure as that the tree will not fall unless with old age if it be not from a shock of nature or by the art and power of man, which all doubtless happen in accordance with the will of God—men therefore, may in this sense be said to be predestined of God. Thus, the instruments of God's purposes among men arise in the course of the ages, for the most part among mankind themselves; warriors that overrun nations, inflicting on them punishments in consequence of the retributive justice of the Deity, as well as cruel and oppressive rulers and magistrates; reformers to effect a change for the better in the national systems of religion or superstition or morals; philanthropists and good men and women in various spheres of life to accomplish in various ways, the benevolent purposes of Deity among mankind. Now all power as well as benevolence has its origin in God, springs from him, and since God is infinitely good even so it is said with truth that God

makes all things work together for good to them that love him and are called according to his purpose. But some of my friends may be wishing to learn how they are to know whether or not they themselves are predestinated and elected of God to life and salvation. In answer to such an inquiry I may say: show me a human being who lives a godly life and *believes* himself or herself to be one of God's elect, (for if one lives not a godly life one will not have any such belief or confidence,) and I will show you one who is of the number of God's elect. Comforting thought, which may each one of you realize for yourselves, and glorify God in your body and spirit which are God's, always still keeping in mind that you are free moral agents, and, therefore, responsible toward God and toward men for the manner of your life and your actions, and that as you *believe* it to be, in the matter of predestination, so shall it be unto you.

On Baptism and the Trinity.

Romans, Ch. VI., verses 3–6. "Know ye not that so many of us as were baptized into Jesus Christ were baptized into his death? Therefore, we are buried with Him by baptism into death, that like as Christ was raised up from the dead by the glory of the Father even so we also should walk in newness of life. For if we have been planted together in the likeness of his death, we shall be also in the likeness of his resurrection."

In Christianity, Christ is the symbol for perfection, and godlikeness of human character as well as for true doctrine. The idea of Christianity itself originated by the wisdom of God with the movement that was inaugurated and carried on by John, called the Baptist. This John was a real historical personage, a man that existed and acted much as he is represented to have done in the New Testament and in the Jewish history of Josephus. He lived in the time of Herod the Great, King of Judæa, nearly nineteen centuries ago. He is represented in the New Testament as preaching to the people repentance and baptism, or the baptism of repentance, for the remission of their sins, and as proclaiming himself to be the forerunner of one that was to come after him, one who was mightier and worthier than he. The bulk of the evidence both direct and indirect which we have in the New Testament goes to prove that John and his disciples baptized by immersion, a fact which is also implied in our text, where it is said that so many of us as "are" (which is the literal meaning of it, not "were," as translated,) baptized *into* Jesus Christ are baptized *into* his death, etc." And in

the last chapter of Matthew, verse 19, the command is given to go and teach all nations, baptizing them *into* the name of the Father and of the Son and of the Holy Spirit. And in the epistle to the Galatians, chapter III., verse 27, it is said: "For as many of you as have been baptized *into* Christ, have put on Christ." We see, therefore, that in the primitive times of Christianity, they regarded it as meaning the same thing to baptize the person into the name of Father, Son and Holy Spirit, or into the name of Jesus Christ. Therefore Jesus Christ represents Father, Son and Holy Spirit; and conversely, Father, Son and Holy Spirit represents Jesus Christ; that is, the one means the same as the other. In the operation of baptism the person was immersed into water and the formula of words pronounced upon him or her: I baptize thee into the name of the Father, and of the Son, and of the Holy Spirit, or, I baptize thee into the name of Jesus Christ. This method of baptism, it is certain, was practised in general in all the ages of the primitive Christian Church, or for the first three centuries of the Christian era, and probably for many centuries later until baptism by aspersion or sprinkling came to be generally practised in the Catholic Church, when that was the established religion of the Roman Empire, especially by the Church of Rome. The being baptized then into the name of Father, Son and Holy Spirit, or into the name of Jesus Christ, means that the persons baptized were to consider themselves in the mercy of God as representing the same, symbolized by that one into whose name they were baptized.

"For," it says, "as many of you as have been baptized into the name of Father, Son and Holy Spirit," or "Christ," have taken upon you this name, have appropriated the name which has been called upon you. Christ, therefore symbolizes all that would live the life of active godliness, the complete Christian life, ever after. Jesus Christ, I say, represents not only one, but also many, even all who, in all ages, would practise repentance and baptism for the remission of sins and would ever afterwards live the life of entire and active godliness, the perfect and complete Christian life. John being the forerunner of Jesus Christ, he that was to come after him was he or they who had submitted to repentance, a change of heart and of life, and to baptism, in the perfection of wisdom, and knowledge, and holiness, to which they had attained by living the life of entire and active godliness ever afterwards. Hence we may understand the Trinity knowing that he that is a father must necessarily be a son, and may if he will, that is if he will live the entire life of active godliness, be a holy

person, spirit, or influence; if one be not a holy person and live not the life of godliness, one will not be likely to understand one's self as representing the Trinity, otherwise called Jesus Christ.

But you will ask doubtless, how is it that a human being can be a spirit? You will say that each human being has a spirit or soul in them by which they live, and breathe, and think, and rationalize. I will further inform you that each human being is a spirit, even a master or controlling spirit, if one will have it so; and that not only is each and every human being a spirit but that the cosmos in which we dwell all the media in which we exist, live and move, and of which we are constituted is spirit. This is something that most people have not realized before, but this is true. And not only the orb which we inhabit but the heavenly orbs that exist in space, as the sun, moon, planets, and stars, are spirit; not literal spirit, as the air which we breathe, but nevertheless real spirit? You will perhaps say that this is not how you have ever understood spirit, and doubtless you speak truly as to your previous understanding of it. But what is spirit? Literally it is that which we breathe. Spirit from the Latin word *Spirare*, to breathe, means that which we breathe or breath; for instance, the air or atmosphere which surrounds us, and which we breathe is literal spirit. And the whole planet, on which we live, is of a nature reducible to a gaseous or aeriform state. But though this is true, that this globe is of a substance reducible to the state of air, yet this reduction of our globe, as a whole, is not practicable; but it may always for what we know to the contrary exist as spirit in a condensed form. The principal difference between the air we breathe and the solid terrestrial sphere is that the one is spirit in a rare and breathable form, the other spirit in a condensed form, not fit to be breathed by living creatures not ever meant for that purpose. Water is also spirit in another form. Therefore man, though not a literal spirit, is none the less a real one, and the principal difference between spirit, which we can see in a solid tangible form and that which is invisible and breathable is one of density and rarity of substance. Yea, the solidest rocks and the densest metals and minerals, with all earthly substances as well as water, are all of a nature reducible to a gaseous or aeriform state. Matter, therefore, may be said to be spirit in a condensed form; and spirit may be said to be matter in a rare or breathable form; and it can therefore be said with the strictest truth that nothing exists but spirit in various forms; and it can be said with equal truth that nothing exists but matter in various forms, even the air we breathe and the ether which exists in space, as well as water, being material. The principle of intelligence is present everywhere and in

everything, and intelligence, as it exists in man or in any of the animate creation, is a development from matter or spirit. All vegetables and animals bring forth after their kinds respectively, and a man of to-day inherits the intelligence, the reason, and the genius of his ancestors which he can and does cultivate and develope.

But Jesus Christ symbolizing not only one but also all who would submit to baptism and repentance and live the life of active godliness, you can easily understand how that he who was to come after John, or those who had attained to perfection by following the teachings and submitting to the discipline of the new dispensation, was or were also before John. And, although John was a wise man, a great man, and a prophet, doubtless there were many of his disciples and followers, as well as many men in all ages previous to him, that were as great and as wise as he. Jesus Christ then, in the way I have explained it, is he that is spoken of as the Alpha and Omega: he that is past, present, and to come; the beginning and the ending, the first and the last; all of which expressions are partly I believe meant to teach the eternal sonship of Christ. Now, knowing that man is a spirit you will easily understand how that he may represent a holy spirit, or the holy spirit, and how that he may be an evil, wicked and unholy spirit, for his free agency says he can choose to be either; and, therefore, you will with the greatest ease understand how that Father, Son, and Holy Spirit represent the same person under three characters, under the character of a Father, of a Son, and of a Holy Spirit, person, or influence.

The word Trinity is not found in the Scriptures. We find it first made use of by Theophilus, bishop of Antioch, in the second century of the Christian era, who invented it to express the distinction of persons in God. "The Christian Church," says Dr. McLaine, the translator of Mosheim's Ecclesiastical History, "is very little obliged to him for his invention;" and no wonder, when it is understood that Father, Son, and Holy Spirit, mean not three persons in one but one person under three characters or names. "The use of this and other unscriptural terms," adds the same writer, "to which men either attach no ideas or false ones, has wounded charity and peace without promoting truth and knowledge. It has produced heresies of the very worst kind."*

But having come to some knowledge of the Trinity, the next question that will probably arise in your minds with respect to it will be: Is it required or permitted to worship the Trinity? The worship of the Trinity is not taught in the Scriptures, neither was it practised by the primitive Christians. The worship of the Trinity

* Eccles. Hist. Chron. Table.

under the idea of three persons in one God is peculiar to mystified or perverted Christianity. Only the worship of the infinite, invisible, and omnipresent God, is inculcated in the Scriptures; and the worship of the same infinite and invisible God, with or without the interme diate idea of Jesus Christ, appears to have been the universal practice of the early or primitive Christian Church. "If we understand what prayer is," says the celebrated Origen, who wrote about the year 230, A.D., "it will appear that it is never to be offered to any originated being; not to Christ himself; but only to the God and father of all, to whom our Saviour himself prayed and taught us to pray." * The worship of the same infinite and invisible God alone is peculiar to the good, intelligent, and holy of all ages; and the worship of any *thing*, whether it be an object of the sense or only of the imagination, is taught by Scripture and reason to be idolatry, dishonoring to the Deity and displeasing in his eyes. The ancient Hebrews, or Jews, had no idea of the worship of the Trinity, or, in other words, of man. They worshipped Jehovah alone, who, they were taught, was infinite and invisible. The Mohammedan religion, which is very widely spread and largely professed, recognizes only the worship of the infinite and invisible God; and it is believed that Trinitarian, or mystified Christianity, or rather systematic Christian Polytheism which was augmented by gradual increments, was the cause why the Mohammedans so successfully overran the Roman Empire, and why the crescent has waved for so many centuries over Jerusalem, Constantinople, Alexandria and Antioch, where for so long the cross was triumphant and the Roman eagles fluttered to the breeze. Since then, we have not Scripture, or reason, or the practice of the primitive Christians of the first three centuries of our era to favor the worship of the Trinity, and since the worship of no visible being is permitted by the Scriptures, as it is dishonoring to the Deity and displeasing in his eyes; therefore it is plain that the infinite, invisible, and omnipresent Deity, is alone to be worshipped with the speech and with the understanding, in spirit and in truth; which, if persisted in, in all holiness and righteousness of life, will insure to the worshipper his omnipotent favor, as idolatry will ensure his disfavor and displeasure. Man, therefore, be it known, is not to be worshipped; nor is mankind in any way personified to be worshipped; but, man of the present age, and of future ages, after the example of all good men of the past, is to worship the infinite and invisible God alone, in spirit and in truth.

But to return to our text, it says: "Know ye not that so many

---

* Origen's Works.

of us as are baptized into Jesus Christ are baptized into his death. Therefore, we are buried with him by baptism into death, that like as Christ was raised up from the dead by the glory of the Father, even so we also should walk in newness of life." The act of baptism or the immersion of the person beneath the water is here compared to the burial of a dead body; and baptism is a symbol, the immersion representing the putting off of the old or natural man with his deeds, the laying him, as it were, in the grave; and the act of raising the person from the water, the putting on of the new man or Christ, with all his perfections of holiness, and righteousness, of true godliness and all of which represents, as the Church of England Prayer Book clearly expresses it: "A death unto sin, a new birth unto righteousness." The operation of baptism and complete repentance being affected, much of the work of regeneration is accomplished; of regeneration, I say, which is the great, the all important object of Christianity. Many persons like to be told about the creation of the world, and the sky, and the stars; they like to be told some wonderful things about these, and there are teachers of Christianity who appear to take delight in amusing them with such relations. Now it is not the old creation spoken of in Genesis, but the new creation spoken of in John that people should delight to be told about, or which ministers of the Gospel should like to tell them about. The former stands in a like relation to the latter, as the chaff does to the wheat, as the unreal to the real. This regeneration or new creation has its beginning in a change of heart, brought about by true repentance, and is carried on and accomplished by living the life of entire and active godliness. Hence, comes forth the new man which, after God, is created in knowledge, righteousness, and true godliness; he who was to come after John. But it is necessary that those, newly converted to the truth, those who by repentance and godly obedience have begun to walk in the true Christian course should persist in the way of godliness; for as Christ was raised up from the dead by the glory of the Father, even so we also should walk in newness of Life. Such should not be weary in well-doing, knowing that in due time they shall reap, if they faint not; that though they follow a life of self-denial while the world is rolling in sinful pleasures and luxuries and pride all around them, though they even experience some persecution from the wicked worldlings, they still are contented and satisfied that they are treading the right course; for they are aware that the wages of sin is death, and they see that the gift of God which is eternal life by following in the way of Jesus Christ is infinitely preferable.

But our text uses still another illustration when it says: "For if

we have been planted together in the likeness of his death, we shall be also in the likeness of his resurrection." The act of immersion in baptism is here compared to the planting of the seed in the earth, which seed, as is well known, dies, and a new plant springs up from it. And the act of raising the baptized person out of the water is compared to the springing up of the new plant from the seed. This may be considered as even a better illustration than the other, namely, that of burial by immersion of the body in water and resurrection by the raising of the body from it, as it shows the gradual growth in grace of the Christian from the time of his new birth or the beginning of his regeneration to his perfection in godliness. The grace of God, as the result of repentance and godly obedience, begins first to germinate in the heart, then it becomes every day more sensible in the life of the Christian, until it finally brings forth all the desirable fruits and graces of the true Christian character. The grace of God in the heart of the Christian who is beginning the new life has been compared to a flower in the bud; the grace of God as manifested in the perfect Christian to a flower in full bloom. As I have before remarked, regeneration is the all-important thing in Christianity, carnal ordinances are as nothing in comparison.

On the Lord's Supper.

1. Corinthians Ch. II. verses 23–27: "For I have received of the Lord that which I also delivered unto you, that the Lord Jesus, in the night in which he was betrayed, took bread: and when he had given thanks, he brake it, and said: Take eat, this is my body which is broken for you; this do for a remembrance of me. After the same manner also (he took) the cup, when he had supped, saying: This cup is the New Testament in my blood; this do ye as oft as ye drink it for a remembrance of me. For as often as ye eat this bread and drink this cup, ye do show the Lord's death till he come." Paul, the writer of the Epistle in which our text is found, is not represented to have been one of the immediate disciples of Jesus Christ. It is not recorded that he ever saw Jesus Christ in the flesh, his conversion not taking place till some years after Christ is represented to have been crucified. When, therefore, he speaks of having received from the Lord that which also he delivers to the Corinthians concerning the institution of the Lord's Supper, it must mean that he was taught this by the spirit of the Lord. In the Old Testament prophecies it is foretold that in the time of the new or Christian dispensation all should be taught of the Lord, and that none should need to teach another the knowledge of the Lord, for all should know him from

the least to the greatest: For the earth shall be filled with the knowledge of the Lord, as the waters cover the seas. And in speaking with regard to the Church of the future, it is said of it: All thy children shall be taught of the Lord, and great shall be the peace of thy children. All this means that the knowledge of the Lord would become very general among mankind, among those especially who lived under the Christian dispensation. But it does not mean that all would be equally versed in the knowledge of the Lord and in things divine, a state of things which has never yet been realized in the Christian Church; nor that all would possess the same divine gifts and endowments, for the gifts of the spirit are as various as they are manifold; nor that they who should possess the same gifts and endowments would possess them in an equal degree. What it means is, that the knowledge of the Lord would be very widely diffused among Christians generally, and that there would be a time when this diffusion would be very great, marked and significant, a time which doubtless in the fulness of the signification is yet to come, and which we ought to hope and strive and pray should soon come.

Paul was taught of the Lord, he was taught of the spirit of truth.* He lived in the times of the Primitive Church, was himself one of those who first helped to introduce Christianity, and would be supposed to know exactly the state of the case with respect to the way and manner in which the Lord's Supper was celebrated. An account of this institution is given in three of the Gospels, in Matthew, Mark, and Luke, as well as in the first Epistle to the Corinthians, the place from which we have taken our text. Although baptism was in practice before it, this was one of the first institutions of the Christian Church. It would appear to have been designed to be a substitute for the Jewish sacrificial ritual, at least it was afterwards made to have this design. The way in which it was practised in the primitive Church, that is, speaking in regard to this, the Church from the latter part of the first century on to the third or fourth century of the Christian era, teaches this. According to Mosheim, in his Church history, the following was the way in which this institution was carried on in the primitive Church. "The Christian people, according to their wealth, brought oblations of bread and wine and other things, which they offered to the Lord. Of this bread and wine such a quantity was separated from the rest as was sufficient for the purposes of the holy supper, which was consecrated

* This means that he was of that spirit which enabled him to understand aright what was communicated to him in words by another, or what he saw recorded in writing concerning the matter under consideration. The expression need not be understood to favor the modern notion of inspiration, for that tends to superstition.

by certain prayers pronounced by the bishop or presiding elder, to which the people assented by saying: Amen. This consecrated bread and wine was distributed to the people by the deacon; (for even in the latter part of the first century, we find in the Christian Church what may be regarded as three orders of the clergy, namely, bishops or presiding presbyters, presbyters and deacons;) and the Lord's Supper was in some churches followed, and in others preceded by the *Agapæ* or feasts of love, institutions so peculiar to the primitive Church." Hence it very plainly appears, that the Christian priesthood and the institution of the Lord's Supper were designed, I will not say positively according to the Gospel, to be a substitute for the Jewish priesthood and sacrificial ritual; the Christian bishop or presiding elder representing the Jewish high priest; the presbyters representing the Jewish priest; and the deacons the Levites; the popular oblations of the Christians representing those of the Jews, and the offices of the bishops, presbyters and deacons, with respect to the sacrament of the Lord's Supper and the Christian service generally, representing those of the high-priests, priests, and Levites, with respect to the sacrifices of the Jews and the Jewish service generally. The primitive manner of celebrating the Lord's Supper was much changed in the course of time, and was also varied according to locality. Also, the purport and meaning of that institution was differently understood by different persons in the earliest times of Christianity, and all along in the succeeding ages by the different Christian sects; some believing the representation of it in the New Testament to be allegorical and symbolical, others to be literal and real. Their opinions and beliefs always differed with respect to the Lord's Supper, as they did with respect to Christ, whom the Gnostics, a numerous and intelligent sect of primitive Christians, believed to be rather an allegorical or spiritual character, than a real man. The sects of the Gnostics, of which there were many, were also called *Docetæ* from the Greek Δοκεῖν, to appear, because they professed to believe that Christ was only an appearance, a phantom and not a real body. Instead of being born of a virgin, as those who understood the New Testament literally professed to believe, they taught that he descended on the banks of the Jordan in the form of perfect manhood, where he imposed upon John the Baptist, as afterwards his persecutors the Jews, and upon Pilate and his ministers, who wasted their rage upon an airy phantom that had no real corporeal existence. The orthodox, as they were called, on the other hand professed to believe the New Testament literally; and thus taking the four Gospels, they made out the Lord's Supper to be a real literal institution. But considering the four Gos-

pels by way of comparison with each other, we are led to conclude that the representation of the Lord's Supper must be of the same character with respect to literal or allegorical as the other representations of the Gospels. Now the four gospels come to us with equal authority and as of equal credibility respectively, that is, we have as much right to believe any one of them to be authentic and genuine history as we have to believe any other of them to be such ; and thus from a fair, careful, and impartial comparison we find the Gospels, although their representations are founded upon facts, the facts connected with the movement inaugurated and carried on by John the Baptist, to be allegorical, but their design to be such that rightly interpreted, they are quite as important as if they were of literal signification, and as such, consistent with one another and with themselves in everything. What, therefore, does the representation of the Lord's Supper mean according to the gospel idea? And what do all the symbols employed in that representation mean? Would not the Gospel Feast be an appropriate name for the representation of the holy supper? Would it not mean the feeding on the pure doctrines of the Gospel? Would not Christ, which in the gospel's representations sometimes sets forth Gospel truth, and sometimes truth and perfection personified and persecuted in a human being in whom they were exemplified, here symbolize not only truth itself, but also the faithful and true Christian ministers or instrumentalities, who impart sound doctrine, the spiritual bread of life, to the Christian Church of all ages, which in this case is represented by the twelve apostles, twelve being the symbolic number for the complete Christian Church? The bread and wine which the true Christian minister gives to the people are thus the pure doctrines of the Gospel, the symbolical body and blood of the New Testament. It means the pride-subduing, the illuminating, and the soul-reviving doctrines of the Gospel. This is what the representation of the Lord's Supper properly means, in accordance with the literary character of the Gospels. But there was such an institution in the primitive Church as a literal supper corresponding to that called the Lord's Supper in the Christian Church at the present day, at which professing Christians used to assemble together for the purpose of mutual and friendly intercourse, and to contemplate the self-denying life and crucifixion of Christ. This institution, as I have before remarked, was thus practised in the Christian Church at a very early period of it; and was designed to be a substitute for the Jewish sacrificial ritual. This last sense, as a whole, was doubtless given to the institution of the Lord's Supper at the time of the rise of the bishops over the presbyters in the latter part of the first century, which sense it has retained in all churches

governed by bishops ever since. The bishops of to-day recognize themselves as the representatives of the high-priests of the Jewish Church; the presbyters as the representatives of the priests; and the deacons of the Levites. But the institution of the Lord's Supper in this latter sense is of human origin, and is literal in its signification; the representation of the Lord's Supper in the Gospels is evidently symbolical. If, therefore, we wish to follow the divine and not the human institution; if we wish to have the Gospel sense of it and not the sense that men have attached to it, we shall take this institution in the sense I have given it above, in the sense of a feast of pure Gospel doctrines, partaken of by humble godly Christians; in the sense, I say, of pure Gospel doctrine, the symbolical body and blood of the New Testament. Nor can it be injurious to Christians, we think, to practise this institution in the second sense, namely, in the sense of a literal supper, provided they practise it aright. But even so they should hardly look upon it as an ordinance of human institution; they should frequent it for the purpose of friendly intercourse and of mutually cultivating the spirit of charity and benevolence towards each other, and above all they should, on such an occasion, contemplate the self-denying life of the true Christian, the life of holiness and of active godliness.

They should not, as the Church of Rome teaches and even some Protestant churches teach, imagine that the bread and wine they receive in that ordinance are transmuted into the body and blood of a man, a doctrine which has long been, and still is, the source of untold blasphemy; in receiving these symbols or signs of true Christian doctrine, they should resolve and endeavor to live the life of holiness, and of entire and active godliness, which the Gospel inculcates. They should be heartily sorry for their past sins, and desire and endeavor to live holier and better in the future. This, doubtless, was the way in which they practiced this institution in the very early times of the primitive Church before the rise of the early bishops. The primitive Christians were distinguished for their humility, their purity, and their zeal for truth and for God. They were distinguished, too, as being for the most part of the humbler and more illiterate classes of the people. But when the bishops sprung up and the design was accomplished of making the Christian system a complete substitute for the Jewish system, then came the pride of the world into the Church which increased enormously when orthodox Christianity was established in the Roman Empire. Then the proud and the wicked rich came into the Church in great numbers and had all things in their own way. They, as it were, took the kingdom of heaven by storm. When Pride came in, Hu-

mility, the parent of godliness, with all her kindred graces, had to go out. They both could not live in the same house nor sit on the same throne together; and then commenced the long and doleful reign of Antichrist, which has continued, till, in our own time, the freedom which the spirit of the Lord inspires is now beginning to show itself, and the true light of the Gospel, which has long only glimmered, has now begun to shine more fully. Where the spirit of the Lord is, there is perfect liberty. Where the spirit of Antichrist prevails there is complete slavery, slavery not only of body but of mind; for we know the body follows and obeys the mind; captivate the latter and you have the former in subjection, just in the same way that all the members of the body, as the hands and feet and eyes and muscles, and even the head itself are obedient to the mind and will. Hence it is said in Revelation, ch. XIII., that the beast gave them a mark upon their right hand or upon their forehead, the latter denoting the intellectual, and the former (the right hand being the principal organ of corporeal action,) representing the bodily faculties; and the whole taken in connection with what precedes and follows in narrative signifying that the anti-Christian power, which was symbolized very properly by a wild beast, would bring all people within its jurisdiction, into such complete subjection, that they should be enslaved to it body and mind. This has been accomplished in all the ages of Catholic Christianity in the Roman Empire, both at Constantinople and at Rome, and in other nations and places until the present time. And any man who reads the history of the Christian Church, or even the secular history of the Roman Empire and of modern Christian nations till the present time, will see what an untold amount of evil, and contention, and bloodshed, and wickedness, and blasphemy against God the doctrine of transubstantiation has given rise to among mankind. And even in some churches calling themselves Protestant, that doctrine is taught in the height of its absurdity. Some people, it appears, must have a visible and tangible God; and a great portion of mankind, dispensing with the evidence of their sense and reason, have made a piece of bread or wafer their God; have put it up and worshipped it; and have talked, and debated, and wrangled to no end with respect to it. Did we not know positively that this is so we could hardly bring ourselves to believe that men could be so senseless and silly as to consent to or admit such absurd doctrines and believe them so strongly as to subject their fellow-men to the most cruel tortures and to death for not professing to believe them; yea, and to themselves endure cruel sufferings and death in support of them. Christians should be always on their guard against the deceptions of

their own hearts, for the heart is deceitful above all things and desperately wicked. They should likewise be on their guard against the wily deceptions of Satan, their invisible enemy, which is on the watch to ensnare and deceive them, which not only goeth about as a roaring lion seeking whom he may devour, but can also transform himself into an angel of light, and so under this mask of deception, beguile the unstable and unwary soul; and none can resist his deceptive attacks but those who are of an humble, a contrite, and a prayerful spirit. Satan sometimes deceives men by causing them to set up a visible god or idol. It has been the propensity of men in all ages to go openly or glide imperceptibly into idolatry.

Behold the Jews whose national characteristic it was to worship the infinite and invisible God; how that large numbers of them set up idol calves at Bethel and Dan, which they worshipped for many centuries. All this brought upon them the severe judgments of the Deity, and their long captivities in Assyria and in Babylon witness his retributive justice. What is the difference in guilt between the one that worships a calf-idol and the one who worships a wafer or a piece of bread as his god. The latter appears to do even more absurdly than the former and to act more inconsiderately. Christians, surrounded and beset as they are with enemies without and within, which all may be summarized under the heads of the world, the flesh and the devil, should walk circumspectly, not as fools but as wise, redeeming the time and making the most they can of their powers and their privileges, and should not only avail to keep the flesh and the world in subjection, but should always faithfully fight the good fight of active godliness to bring them more into subjection and make still larger conquests in the world for God.

But what are they to do in order to achieve and maintain this dominion for God? Are they to be taken up with the fashions, the allurements and the pleasures of the world, to the neglect of godly living? Or are they to remain entangled in the sacerdotal net of carnal ordinances, to the neglect of practical godliness? Oh no; but while the observance of the Lord's Supper, as indicated in the Gospel, properly understood, conduces to practical godliness and all holy living, it is a fact that if that institution is observed merely as a carnal ordinance and as commonly practised in the Catholic Church and in some churches called Protestant, its tendency is not to practical godliness but rather the opposite. The observance of carnal ordinances is as nothing in comparison with pure practical Christianity. Circumcision is nothing, uncircumcision is nothing; but keeping of the commandments of God is all important.

On the Law and the Gospel.

Galatians, Ch. III., verses 23–27. "But before faith came, we were kept under the law, shut up unto the faith which should afterwards be revealed. Wherefore, the law was our schoolmaster to bring us unto Christ that we might be justified by faith. But after that faith is come we are no longer under a schoolmaster. For ye are all the children of God by faith in Christ Jesus."

The chief argument of the Apostle in this letter of his to the Galatians is that they are no longer bound by the law or the old Mosaic dispensation since the gospel or the new and Christian dispensation has come: that under this new dispensation all are the children of God by faith in Christ Jesus. The law, says the Apostle, was our schoolmaster to bring us to Christ that we might be justified by faith. The word here translated schoolmaster, namely, παιδαγωγὸς means one who, it is said, not only taught the children, but conducted them from their homes to the school; and to their homes from the school; and, therefore, it is said, the law was our schoolmaster to bring us to Christ, unto the school where the true faith of God is cultivated. The law was given by Moses, but grace and truth came by Jesus Christ. The law or the old dispensation implied guilt, for by the law is the knowledge of sin, as where no law is there is no transgression, no law to be violated or transgressed, no sense of the penalty due to transgression; but the gospel dispensation implies grace or favor, a sense of justification to him who embraces the truth, for in this we are justified by the faith of Christ and thus become children of God. It is therefore plainly seen how superior is the new dispensation to the old; the dispensation of grace to that of works and carnal ordinances, the Christian system to the old Jewish. The law or the Jewish ritual was very narrow in its application; it was designed for a single nation, and if the Israelites had complied with the command which required their males to present themselves thrice a year (See Exodus XXXIV., 23; Deuteronomy XVI., 16) before the Lord in the place which he should choose, or Jerusalem, they could never have extended themselves much beyond the limits of the promised land. But they did not comply very rigidly with this injunction as they did not with many other requirements of the law, and we find the Jews, even in early periods of their history, scattered in distant countries far beyond the boundaries of the land of Israel. This was a necessary consequence of the natural increase of the people, who could not all subsist in their successive generations if they were confined to a limited portion of the earth. The new or Christian dispensation is more extensive in its applica-

tion, applying as it does to mankind world-wide. Christianity was designed for and is applicable to all the nations of the earth. It knows no difference between Jew and Gentile; for all are the children of God by faith in Christ Jesus. According to the commonly received chronology the Jewish dispensation continued from the giving or promulgation of the law by Moses to the destruction of Jerusalem by Titus, a period of nearly sixteen hundred years. The Jews, however, continue yet to practice their religion wherever they happen to reside, and they have always been obstinately tenacious of it. Neither persuasion nor force could induce them to allow the gods of other nations to be introduced into the temple of Jehovah, and Antiochus Epiphanes, Pilate, and Caligula realized this by the opposition they encountered to their introducing to the temple their images or to the city their institutions. The Jews had a great respect for their law, and it has been remarked that the farther they were removed in time from their lawgiver, the greater was their respect for him, and the stronger their belief in the miracles he was represented to have wrought. That law, as I have said, was designed for a single people and was very limited in its application. There is a summary of it in the Ten Commandments, otherwise called the Decalogue; but, considered in detail, the observance of the law must have been very laborious and difficult. The law enacted frequent sacrifices and many observances; it besieged not only the priest and the Levite, but the citizen in all the positions of life and exacted from him the amplest and most implicit submission to its dictates and requirements. Its conditions were, he that doeth these things shall live by them; he that doeth them not shall die. The conditions then on which the law saved men were works, the doing what the law required. The condition on which the Gospel offers salvation to men is, according to our text, faith, for it says: Ye are all the children of God by faith in Christ Jesus. We must, however, if we wish to expound the Gospel consistently with itself, take another conditional item as necessary to secure salvation, namely, works; for in the Epistle of James, it is said that faith without works is dead, that is, it counts for nothing. Hence, according to the Gospel plan, faith and works are necessary to secure salvation to men. But by works we are not here to understand the works or observances which the law required, but the good works which spring from charity and love, which invariably accompany the true faith and are included in it. The Gospel dispensation did away with the necessity of the works and observances required by the Mosaic dispensation, which consisted mainly in the observance of carnal ordinances and in obedience to a system of rules and regulations. But, becoming the children of God

by faith of Christ and the performance of all good works which tend to godliness, men under the new dispensation become perfectly free, free from the works and observances of the law: they become God's freemen at the same time that they become God's children. The law and the Gospel were both revelations from God to man, the law a partial revelation, as it were a schoolmaster, to bring men to the full light of knowledge and wisdom concerning heavenly things. The law was as the morning star which ushers in the sun and the full light of day, which last represents the Gospel rightly understood. Before faith came, men were kept under the law, shut up unto the faith which should afterwards be revealed; they were, so to speak, groping in the dark to get into the right way; they were surrounded and enveloped with mystery, not knowing the true God, and slaves to the ordinances and works of the law. The law ruled men with a rod of iron, compelled them to an obedience to it; the Gospel chastises men with a scourge of small cords, and leads them gently to a profession of its doctrines and an obedience to its requirements. The law was our schoolmaster, and almost every person can bear witness to the terror which the schoolmaster inspired them with in their youth; and those who were disobedient or negligent can doubtless bear witness to his actual severity to them. But the Gospel brought men into the position of children; children of a loving parent, no longer under the severe rule of a rigid and an inflexible schoolmaster; and if children, then heirs, heirs of God and joint heirs with Christ. Where the spirit of the Lord is, there is liberty; under the true Gospel, men are full of light and knowledge and wisdom as to all things that concern godliness; and the result of this is freedom, the freedom which the love of God, their father, imparts, for perfect love casteth out fear with all its torment.

But men were in bondage to the law and its requirements; they were in darkness, shut up unto the faith which should afterwards be revealed; yea, they were groping in the darkness of their ignorance for the way of life, not knowing the true God, nor whither they should go to find him. That is the state the majority of the Jews are in to-day, shut up in the darkness of superstition, in bondage to the requirements and observances of the law. They do not believe that the Messiah has come, and it may require an extraordinary revolution in their opinions before they come to believe it. The prime difficulty in this respect is that they do not know what the Messiah or Christ means. Nor are the great majority of those called Christians to-day in any better condition. They have heaped up to themselves a large amount of superstition and increased their gods without number; so that when we speak of the Gospel in contra-

distinction from or in relation to the law, we speak of the true Gospel, rightly understood, without any mixture of the errors which were from time to time introduced into it and into Christianity. If it be asked which are in the best and the truest position to-day, the Jews or the idolatrous Christians, we can hardly answer that the Christians are, for the Jews, though exceedingly formal, exclusive, and somewhat unamiable in their way, cannot be called idolaters in the ordinary acceptation of that term, while the great majority of those called Christians are the most absurd of idolaters. The Roman Catholic, it is said, whether truly or otherwise I do not pronounce, worships a wafer as well as a great many deified human beings, men and women, as also the people of the Greek Church and of other branches of the Church Catholic, do as much. They also observe feasts and fasts and holidays kept in honor of the Saints to no end. But the Jews, though they observe many feasts and carnal ordinances, yet profess to worship only the invisible and infinite God, the creator, preserver, and governor of all. But after that faith is come ye are no longer under a schoolmaster. Great are the rewards of faith. By faith the elders, God's servants in every age, obtained a good report. By faith Abel offered unto God a more excellent sacrifice than Cain by which he obtained witness that he was righteous, God testifying of his gifts, and in it, he being dead, yet speaketh.. By faith it is believed that Enoch was translated, that he should not see death; and even *we* become the children of God by the faith of Christ. By faith Abraham, when he was called to go out into a place which he should afterwards receive for an inheritance, obeyed; and he went out, not knowing whither he went. By faith he sojourned in the land of promise as in a strange country, dwelling in tabernacles with Isaac and Jacob, the heirs with him of the same promise. For he looked for a city which hath foundations, whose builder and maker is God. By faith Moses, when he was come to years, refused to be called the son of Pharaoh's daughter; choosing rather to suffer affliction with the people of God than to enjoy the pleasures of sin for a season; esteeming the reproach of Christ greater riches than the treasures in Egypt; for he had respect unto the recompense of the reward. By faith he forsook Egypt, not fearing the wrath of the king; for he endured as seeing Him who is invisible. And what shall we say of those who, through faith, subdued kingdoms, wrought righteousness, obtained promises, stopped the mouths of lions, quenched the violence of fire, escaped the edge of the sword, out of weakness were made strong, waxed valiant in fight, turned to flight the armies of the aliens. Others had trials of mockings and scourgings, yea, moreover, of

bonds and imprisonment. They were stoned, they were sawn asunder; were tempted, were slain with the sword; they wandered about in sheepskins and goats kins, being destitute, afflicted, tormented. Of whom the world was not worthy, they wandered in deserts and mountains and in dens and caves of the earth. But these all having obtained a good report through faith, received not the promise: God having provided some better things for us, that they, without us, should not be made perfect. But without faith it is impossible to please God; for he that cometh to God must believe that he is, and that he is a rewarder of them that diligently seek him. He that cometh to God, says the Apostle, must believe that he is. The fool hath said in his heart, there is no God. Rejecting the evidence of sense and reason and all that nature and revelation affords him, he saith in his heart: There is no God. The condition of no man we can imagine is more pitiable than that of him who saith there is no God. Such an one is profoundly dark-minded, ignorant, and of a perverse, obdurate heart. The work of regeneration has never taken effect in the heart of such an one. The heavens declare the glory of God; and every little plant and flower and pebble and microscopic animalcule; every object that is seen in the domain of nature declares his presence and power. And still there are some who say in their hearts: There is no God. Yea, and there are many, very many, who act and conduct themselves all through their life as if they believed there is no God, as if they had no realizing sense of the existence and presence of that omnipresent, omnipotent, and infinitely glorious Being. Their hearts are perverse and estranged from the right way; and the imaginations of the thoughts of their hearts are only evil continually. Such men, it appears, would certainly need a pedagogue to bring them to a knowledge of the truth. They would need to be dealt with, not as children, until they become babes in Christ. They would need to be required to lay aside their ignorant self-conceitedness and to receive the truth as little children. Then, when they had come to a knowledge of the truth, had arrived at the true faith, they had become the children of God, heirs of God, and joint-heirs with Christ, and, consequently, have no longer need of a schoolmaster, no longer themselves attach any importance to carnal ordinances and man-devised ceremonies and rites, with so many of which the Jewish Church abounded, and the largest part of the nominal Christian Church now abounds. But they will recognize the necessity of cultivating and practising active godliness as the one thing needful and altogether above comparison with the observance of carnal ordinances, rites and ceremonies. They live as becometh children of God, having no longer any need of a school-

master, to bring them to the school of Christian faith; but being joint-heirs with Christ, they are as heirs in subjection to the obedience of Christ. Here, when I speak of the obedience of Christ, I refer to the life of holiness and of entire and active godliness which the true Christian lives, and not the obedience to any man or to any combination of men to the neglect or compromise of obedience to God, and his truth and righteousness. When I speak of the obedience of Christ, I mean the obedience which the child of God renders to his heavenly father, a loving, childlike, filial, unconstrained obedience while pursuing the course of godliness in all the circumstances and conditions of life. The observance of carnal or man-devised ordinances in comparison with this life is as nothing. The Apostle in speaking of this says: Circumcision is nothing, uncircumcision is nothing, but the keeping of the commandments of God. The children of faith are dead to the law, that is, the law in respect to its ordinances and ceremonies is null and void as regards them. But there are nevertheless parts of the law which are always obligatory on the Christians, as, for example, that part called the Ten Commandments.

In regard to the Ten Commandments, the Christian dispensation does not annul, but it confirms them. Whosoever breaketh even the least of these commandments and shall teach men so, the same shall be called the least in the Kingdom of heaven; but whosoever shall do and teach them, the same shall be called the greatest in the Kingdom of heaven. To the Ten Commandments, the New Testament has added another: A new commandment give I unto you, that ye love one another. This is a command to all men, and more especially to Christians, to love one another, and may be called the eleventh commandment of the all-comprehensive divine law. God would govern men by the law of love; and he would also have them live and act in relation to each other in accordance with the same law. If men universally would live in accordance with God's requirements, they would not only love God, but they would love each other. Love would be their motive power to action, and it would also be the bond of their union. There need be no more among men the distinctions of Jew and Gentile, of Christian and Pagan; all would be the children of God by the faith of Christ Jesus; all would love their God and each other with an unfeigned, an unvarying love, a love which would go forth benevolently and beneficently in action and expression. The old walls of partition between Jew and Gentile, between Christian and Pagan, would then be broken down completely, and their differences entirely obliterated, and mankind generally might then be called one holy,

happy family, even the family of God. Let Christians then esteem the privileges which they enjoy of living in an age of Gospel light when all may become the children of God by cultivating the faith of Jesus Christ. Let them estimate these blessings by comparing their condition with that of the Jews for sixteen centuries that they continued under the law, shut up unto the faith which should afterwards be revealed, the faith in which we live. Let them also estimate their privileges by comparing their condition with that of the hundreds of millions of heathen people now on the earth by whom they are surrounded, who prostrate themselves to stocks and stones, and serpents and almost all the objects and powers of nature; who in the darkness of their ignorance and superstition, bow in abject submission to everything else but the true God. Let those of the Christians who worship the infinite and invisible God alone in spirit and in truth, who live the life of active godliness, look with compassion upon many millions of their idolatrous brethren also called Christians, whose religion appears to be very little if any better than that of their Pagan neighbors. Let such I say look with compassion upon their idolatrous neighbors, of the nominal Christians, and resolve to do all in their power to free them from their error and idolatry, to advance the cause of God among them, and to make them the Lord's freemen; free from the thraldom of superstition and from the power of priestcraft; so that they all, with the true Christians, and the truly-converted Jews and Pagans, may become the children of God by the faith of Christ Jesus.

On the Resurrection.

I. Cor. Ch. XV., verses 35–45 inclusive: "But some man will say: How are the dead raised up? and with what body do they come? Thou fool, that which thou sowest is not quickened, except it die. And that which thou sowest, thou sowest not that body that shall be, but bare grain, it may chance of wheat, or of some other grain. But God giveth it a body as it hath pleased him, and to every seed his own body. All flesh is not the same flesh; but there is one kind of flesh of men; another flesh of beasts; another of fishes; and another of birds. There are also celestial bodies, and bodies terrestrial; but the glory of the celestial is one, and the glory of the terrestrial is another. There is one glory of the sun, and another glory of the moon, and another glory of the stars, for one star differeth from another star in glory. So also is the resurrection of the dead. It is sown in corruption; it is raised in incorruption. It is sown in dishonor, it is raised in glory. It is sown in weakness, it is raised in power. It is

sown a natural body, it is raised a spiritual body. There is a natural body, and there is a spiritual body. And so it is written: the first man Adam was made a living soul; the last Adam was made a quickening spirit." The doctrine of the resurrection of the dead is one that eminently distinguishes Christianity. It is not taught in the law of Moses, and is only hinted at in the prophets of the Old Testament. After the return of the Jews from their captivity in Babylon, after Ezra had established them again under the law, two celebrated sects arose among them, called the Pharisees and the Sadducees. It was peculiar to the former of these that they professed to believe in the existence of angels and spirits, and in the doctrine of the resurrection; to the latter, that they professed unbelief in the resurrection; but I will not say, as is said by some, that they did not believe in the existence of angels and spirits. In the mythologies of the Greeks and Romans, and of some of the Eastern nations, especially those in which the doctrines of the Magi prevailed, we find evidence of a belief in some sort of a future state, both of rewards and punishment. The judgment, both as to time and place, and manner, and the character of the future state were defined in their systems with minute particularity. And it is concluded, from what we regard as very satisfactory evidence, that it was from the Magians that the sect of the Pharisees derived their characteristic belief during their sojourn in Babylon. The Magi, or wise men, were a priestly caste especially peculiar to the Eastern countries of Babylonia, Media, and Persia. They, as well as the Brahmins, or priestly caste of India, the Druids of Gaul and Britain, and the priesthood of the German nations, had a mythological system peculiar to themselves. As to the belief of the Druids concerning a future state, we can tell but little, owing to the secrecy which they observed in their religious rites, which prevented all others than the Druids or priests themselves from knowing precisely what their religious system was, and to their leaving no literary records behind them which would inform us respecting it. The doctrine of the transmigration of souls was one eminently characteristic of the Brahminical religion, and also of the religion of the ancient Egyptians, whose religious belief it was, according to Herodotus, that the soul of the human being, after it had passed through all the animals of the land and sea, came again to re-animate the human body, which it had once animated; and their pyramids, their vaults, and their catacombs were constructed, and their mummies were prepared in order to preserve the ancient mansion of the soul for three thousand years, the period of time which it was thought the soul spent in performing its migrations. The length of time which has passed since this belief began to be cultivated, and no sign of re-animation

having appeared as yet in any of the mummies, proves this belief or theory to be entirely groundless; and it is with a more philosophical spirit that Mohammed, who also taught the doctrines of the resurrection, relies upon the power of the Deity to effect the resurrection of the body in his own time, and in his own way. Nor is there any satisfactory evidence or proof whatever that the so-called transmigration of souls takes place. All these beliefs of the heathen nations concerning the resurrection of the dead, it is seen, are different from that inculcated in the New Testament. As to the literal resurrection of the body, it is explained by Paul to take place analogously to the germination and growth of the plant from the seed. The body, as the seed, has to die and decay before it is again quickened. Thou fool, says the Apostle, in answer to him who inquires how the dead are raised up and with what body do they come—Thou fool, that which thou sowest is not quickened, except it die. And that which thou sowest thou sowest not that body which shall be, but a naked kernel, it may be of wheat, or of some other grain. But God giveth it a body as it hath pleased him, and to every seed his own body. Hence, we see that that belief must be false which goes to say that the same body that is consigned to the earth shall again rise from the dead, animate and intelligent.* And we also perceive the falsity of the doctrine of transmigration among the Egyptians, which led them absurdly to believe that after a period of three thousand years, the same body would again become animate and walk the earth. The Apostle to the Gentiles inculcates a contrary doctrine, namely, that it is not that body which dies which shall be again revived, but another body, which according to this illustration springs from it. Thou sowest not, says the apostle, that body which shall be, but God giveth to every seed a body as it hath pleased him; but still and withal to every seed its own body, that is, a body after its own kind. And this is merely saying that all living things, plants and animals, are produced after their respective kinds. If a grain of wheat is sown, an ear of wheat will result from it, if anything do result, and that kernal of wheat may be said to exist in the new ear. And in the same way, human beings live in their children or descendants. A man also may be said to live in his acts, as, for example, he may write a book in which his ideas will be perpetuated to future generations in which he may be said to live; or he may not write any book himself, but still he may be a subject of history, some one else having

* See (in Locke's Works) the long discussion between Mr. Locke and the bishop of Worcester concerning the resurrection of the body, in which the one may be said to have been as correct or as incorrect as the other, for they were equally inconsistent, puerile and absurd in their arguments.

written about him, and thus he lives; or it may happen that neither he has written nor any one else has written about him, but still by his acts and example or the institutions he has founded he may live for a time in the remembrance of the people. Now man, properly speaking, lives only in man. Man of the past lives in man of the present, and man of the present will live in man of the future. As man he cannot properly be said to live in any other way. The nature and domains of the spirit world it is very difficult for us to fully understand, very hard for us to explore. But it is evident that the intelligent period of the existence of a human being, is while one exists a human being, properly speaking, and not before or at any time after ceasing to exist as such. The human body, we know, does not, when it dies, cease to exist, for it retains the principal of life which is inherent in all matter and spirit (for matter is spirit in another form); but as an intelligent conscious human being it ceases to exist and becomes as it were an indefinite part of the universal whole: ceasing to exist as an intelligent actor, then, it must remain in peace; if it be capable of knowing and thinking, it does not know or think as a human being, but differently from anything that we can conceive, and we infer that in peace it remains with and in infinite existence, under the shadow of God, for Deity is everywhere present and comprehends in Himself all extremes and means; all existences are comprehended in the infinite and infinitely glorious Deity. God gives to every seed its own body. All flesh is not of the same kind; but there is one kind of flesh of men, another kind of flesh of beasts; another of fishes, and another of birds; now each of these tribes of living creatures named here brings forth after its own kind. There are also celestial bodies, and bodies terrestrial; but the glory of the celestial is one, and the glory of the terrestrial is another. That the apostle in speaking of the celestial bodies refers to what we understand as the heavenly bodies, as the sun, moon, stars, etc., is plain from what follows in connection; for he says: There is one glory of the sun, and another glory of the moon, and another glory of the stars, for one star differeth from another in glory; or, translating literally, star differs from star in glory. This is what we understand by the heavenly bodies, properly speaking, and what was understood by them in the time of the Apostle Paul. But there are celestial and terrestrial bodies spoken of in another, a secondary sense, but with special reference to human beings. In this latter sense, the natural man, the old Adam, represents the terrestrial body or being; the regenerate man, the last or second Adam, who is made a quickening spirit, represents the celestial body or being. The burial and resurrection are here also of a secondary sense, and

refer to the immersion of the body in water in the act of baptism, and the raising of the body again from the water. And so in verse 29 of chapter XV., of I. Corinthians, the same chapter in which our text is found, it is said by the apostle, as he reasons about the certainty of the resurrection: Else what shall they do which are baptized for the dead, if the dead rise not at all? Why are they then baptized for the dead? There have been many curious and unnatural constructions put upon this passage, some claiming that it was the custom in the primitive Church to baptize persons in the place of other persons who had died unbaptized. But the true meaning of the passage is that these persons were baptized for the dead, that is, as dead themselves in sin and natural depravity,—their burial being represented by the immersion of their body in the water, and their resurrection by the raising of their body from it,—and that, with their baptism and repentance, commenced their new life of regeneration, which was fully represented by the raising of their bodies again from the water after immersion. And in this sense the body is sown or buried in corruption, it is raised in incorruption. It is sown in dishonor, it is raised in glory; it is sown in weakness, it is raised in power; it is sown a natural body, it is raised a spiritual body. All nature or existence is, however, spirit, in some form or different forms, but the regenerate human being is holy in Spirit. There is a natural body and there is a spiritual body. And so it is written: The first man Adam was made a living soul: the last Adam was made a quickening spirit, The soul as applied to man properly means the human being in the possession of his natural faculties, his senses, and intellectual and corporeal powers. And every regenerate human being, every one in whom repentance has had its proper effect, and the new life of active godliness has been begun and is carried on, is a quickening spirit. Every truly godly man or woman is a quickening spirit. And so the last Adam is a quickening spirit. The resurrection, which is the effect of regeneration, is that which is meant principally when the resurrection of dead bodies of Christians is spoken of in the New Testament. And this is altogether the most important resurrection, and so it is said in the book of Revelation: Blessed and holy are they that have part in the first resurrection; on such the second death hath no power, but they shall be priests of God and of Christ, and shall reign with him a thousand years. As the *first death* spoken of in this book of Revelation is a death of sin and ungodliness, from which people might rise and become regenerate, so the *second death* means a death of sin and of ungodliness, into which the unrepentant and those who would refuse to accept of the truths of the Gospel would plunge themselves, a death-state even more fearful and terri-

ble to contemplate than the first, because of the ideas of desperation and permanency implied in it. The first death means the death of sin which all died in the body after the similitude of Adam's transgression; and the regeneration or the life of entire and active godliness consequent upon baptism and repentance represents the resurrection of the body; which is in its most important sense, as is seen, a resurrection from a death of sin to a life of righteousness and entire holiness; which is the putting off of the old man with his deeds and the putting on the new man, which after God is created in knowledge, righteousness, and true holiness. Hence Christ is represented in the Gospel as saying: I am the resurrection and the life. It is not said that he imparted life and effected the resurrection, although that is in a sense meant also, but that he is the resurrection and the life. Now Christ represents the new man, the second Adam, that is, any thoroughly regenerate man, who lives the entire life of active godliness. And this new life of regeneration is principally the New Testament sense of the resurrection. As I have before said, properly speaking man only lives in man; man of the past lives in man of the present, and man of the present will live in man of the future. Hence is seen how important is the subject and the practice of regeneration, the living the life of active godliness, of entire holiness. This is the great design of the Gospel, the great object it has to achieve for mankind. This is that which, if effected in this age, will produce its appropriate fruits in succeeding ages. Christ not only symbolizes the pure doctrines of the Gospel, but he represents the truly godly men who receive those doctrines, and who by their practice and precept teach them to others. Hence these men are instrumental in the conversion and regeneration of others; and hence, in this sense, not only pure Gospel doctrine, but they that teach it, may be called the resurrection and the life. I am the resurrection and the life; he that believeth in me though he were dead,—meaning dead in sin and natural depravity,—yet shall he live: and whosoever liveth and believeth in me shall never die,—meaning the death of sin; living, he shall always live unto God; he shall be active in God's cause, and therefore by God's preventing and sustaining grace he will not fall into the death of sin; but it does not mean that any human being will exist who shall not die a natural death, for all men have to die a natural death. It does not mean that any human being lives forever, however it may be as to personal consciousness with respect to spiritual existences. And when Christ is represented as crying with a loud voice: Lazarus, come forth, it merely represents the heralds of the Gospel awakening mankind from the death of sin to the life of righteousness: this is the resurrection taught in the

Gospel which the representation of the resurrection of Lazarus symbolized. Nor is this resurrection or regeneration effected ordinarily in a moment: like the existences in the living and animate kingdoms of nature it has a beginning, a progress, and a perfect growth to maturity. There is first the bud, then the blade, then the ear, and after that the full ripe corn in the ear. Grace in the heart of man has been compared to a flower in the bud; grace in the truly regenerate man to the flower in full bloom. I do not say it is impossible for the sinner to become regenerate all in a moment, for I believe that God can effect this if he so wills it. But I mean to say that the ordinary operation of grace in the regeneration of human beings is gradual. People should then rojoice if they feel the spirit of God beginning betimes to operate in their hearts, and should delight to cultivate the fruits and graces of that spirit. They will begin to experience the love of God in their hearts, they will feel towards God as their father, and will delight to practice self-denial for his sake, and to work in his cause, knowing that their work for God is a labor of love. They will not be hindered in their godly action through fear, for the love of God in their heart casts out fear with all its torment. And the deeds that they do and the spirit which they manifest, evince that they are born again, not of corruptible seed, but of incorruptible, by the word of God which liveth and abideth forever; that they are practising regeneration, and that they are raised or resurrected from the death of sin to the life of righteousness, holiness, and active godliness. Christ then, by which I mean not only pure and true Gospel doctrine, but also the truly regenerate and actively good man, by whom that doctrine is imparted in precept and example, they will come to understand; and this ideal will appear to them as the all-important achievement, the perfect man, the resurrection and the life. Thus, my friends, I have explained to you the resurrection, how that man lives, properly speaking only in mankind of every age, and in this sense never dies, that is, he ever lives; how that the individual man may live in other senses, as by his example, his precepts and his deeds; but how that the New Testament sense of the resurrection is, properly speaking, of a resurrection from the death of sin to the life of righteousness, which is symbolized by the different phases of the act of baptism; and which is in effect, the regeneration, otherwise called the new creation, or the generation of the second Adam, and to which may you all seek to attain.

On Heaven, Hell, and the Judgment.

Matthew, ch. III. verses 1, 2: "In those days came John the Baptist, preaching in the wilderness of Judæa, and saying: Repent ye, for the Kingdom of heaven is at hand."

Luke, ch. XVI. verse 23: "And in hell he lifted up his eyes, being in torments, and seeth Abraham afar off, and Lazarus in his bosom."

Matt. ch. XVI. verse 27: "For the Son of Man shall come in the glory of his Father, with his angels, and then he shall reward every man according to his works." The kingdom of Heaven, when spoken of in the New Testament, has mostly reference to the kingdom of Christ on earth. It refers to the true Church of Christ, and so in our text, John is introduced as preaching (preaching, from the Latin word *prædor*, I proclaim, is another word for proclaiming) that the kingdom of heaven is at hand. The word heaven is an old Anglo-Saxon term, and signifies literally that which is *heaved up*, or elevated. The Greek word translated heaven is (οὐρανος) and literally means the visible heavens, or the sky, in which sense the word heaven or heavens, is used in the Old Testament. The word heaven, in the sense of its application to the Christian Church, is rather peculiar to the New Testament. In Matt. ch. IV. verse 17, Jesus is represented as beginning to preach, saying: Repent, for the kingdom of heaven is at hand. And in ch. X. verse 7, as he sends forth his disciples, the twelve apostles, he commands them, saying: "And as ye go, preach, saying: The kingdom of heaven is at hand." Thus heaven has in this sense a secondary, yet a real, but not a primary and literal meaning. It applies to the moral world, but not to the physical, and represents mankind or a part of the human race as about to be elevated, exalted morally, by the religion of Christ. As the New Testament resurrection means the awakening from a death of sin to a life of righteousness and active godliness, which the preaching and inculcation of the true doctrines of the Gospel would effect, so the kingdom of heaven means the state of holiness and of active godliness, to which those who would embrace the Gospel and practice its precepts, would attain. And so the apostle Paul in his Epistle to the Romans, ch. XIV. verse 17 says: "For the Kingdom of God is not meat and drink, but righteousness and peace, and joy in the holy spirit." This, therefore, plainly shows that by heaven in the New Testament is meant a state of mind and of heart, and not a place or locality; it means the state of mind of the truly godly person, of the true and genuine Christian. Now, this state of mind pertains to and characterizes not only many, but one, so that even an

individual Christian may represent the kingdom of heaven, yea, and may represent a great deal more than that, though this may appear to be an exalted state for one to have attained. And, moreover, heaven may represent not only one, but many, even all the truly godly of mankind, all real and true Christians on the face of the earth being members of the kingdom of heaven; yea, and they are inhabitants of that kingdom, inhabitants of heaven. And so John came preaching: The kingdom of heaven is at hand. He came introducing that blessed era when all might become members of the kingdom of heaven if they would but practice the doctrines which he taught. In the beatitudes recorded in the fifth chapter of Matthew it is said: Blessed are the poor in spirit, for theirs is the Kingdom of heaven. This is one point of character in which the heavenly state is known in Christians; those who are of the King dom of heaven are of an humble and a contrite spirit. And in the same chapter it is said: Blessed are the pure in heart, for they shall see God. Now, in the first chapter of John, verse 18, it is said: No man hath seen God at any time; and Paul in his first epistle to Timothy, chapter VI. verse 16, says that no man hath seen God, or can see him. It therefore might appear that there is here an inconsistency, but doubtless the verb, to see, means, in the case of that beatitude, to know or understand. Blessed are the pure in heart, for they shall know God. And in Isaiah, ch. LVII. verse 15, it is said: "For thus saith the high and lofty one that inhabiteth eternity, whose name is Holy: I dwell in the high and holy place with him also that is of a contrite and humble spirit, to revive the spirit of the humble, and to revive the heart of the contrite ones." And in ch. LXVI. verse 2, it is said: "For all those things hath mine hand made, and all those things have been, saith the Lord; but to this man will I look, even to him that is poor and of a contrite spirit and trembleth at my word." The truly good man or woman, therefore, the one that is humble and of a contrite spirit and lives a truly godly life, God is immediately acquainted with, and such an one comes to know God and to be taught of him. But there may still be a sense in which the truly godly see God, namely, in the New Testament sense of Christ as God. The truly regenerate man or woman who lives the life of active godliness represents Christ. The apostle Paul, in one of his epistles, says: "It doth not yet appear what we shall be, but we know that when he shall appear, we shall be like him; for we shall see him as he is." Christ appears in every truly regenerate human being; as the apostle intimates when he speaks of Christ being "formed in you," and "Christ in you the hope of glory." This, therefore, is a sense, a New Testament sense, in which

men might see God, and taken in this sense the verb "see" in the passage we have quoted, namely, "Blessed are the pure in heart, for they shall see God," would have its literal signification. But we are not to understand from this that the supreme Deity, the infinite and invisible one who alone should be worshipped in spirit and in truth, can either be seen with the eye or conceived by the mind. Purity of heart, holiness of life, true practical godliness bring men to a knowledge of God such as those who follow the wicked and unholy ways of the world never attain to while thus living. While they are at home in the world, following the dictates of the flesh and of their wayward mind, they are strangers to God, they do not see or know him; nor does it yet appear to them what they shall be; but when they have turned from their evil manner of life, when the true Christian character is fully formed in them, when Christ appears, then they recognize him, for they are like him, and they see him as he is. And where in Revelation, ch. XII. verse 7, it is said that: "There was war in heaven: Michael and his angels fought against the dragon; and the dragon fought and his angels, and prevailed not; neither was their place found any more in heaven.

"And the great dragon was cast out, that old serpent, called the Devil, and Satan, which deceiveth the whole world; he was cast out into the earth, and his angels were cast out with him, &c;" this represents prophetically the contest of the primitive Church with paganism, and its gradual as well as final victory, when established in the Empire by Constantine, when paganism became disestablished, and the gods of paganism were prostrated in the dust before triumphant Christianity, or rather Christian polytheism, which Christianity was now fast becoming. In the prophecy Michael and his angels represent symbolically the whole doctrine and agency of Christianity as the dragon does of paganism. And the contest which is represented to have been waged in heaven was the contest of the Church with the world in the world, with the existing and old-established religions of the world, and not a contest of any hostile powers away above the clouds, in regions unknown to man, and with which he has nothing to do. It means the contest of the Church in the world with the world as well as with the invisible powers of the prince of darkness, a contest in which the Church gradually and ultimately prevailed.

Hell is also an Anglo-Saxon term, from *hel* or *helan*, to roof, cover over, or conceal, and signifies literally a place covered over or concealed.

But as heaven in the New Testament sense signifies the state of mind of the truly godly, whether of one or of many, so hell signifies

the state of mind of the ungodly, whether of one or of many. It means a state of unquietness, of torment, of trouble and of apprehension; it means the opposite in every respect of righteousness, and peace, and joy in the Holy Spirit. The terms darkness and fire are sometimes applied to that state signifying the darkness of mind, ignorance, and superstition, and the disquietude and torment of soul in which they are who are estranged from God and do not walk in the way of godliness. In the parable of the rich man and Lazarus, as according to our text, it is said in Luke, ch. XVI.: "And in hell he," the rich man, "lifted up his eyes, being in torments, and seeth Abraham afar off, and Lazarus in his bosom," which parable is a symbolical representation showing the opposite states and conditions of the righteous and the wicked in the present and future.

As the state of darkness and superstition in which the sinner is, is called death, so the state of sinfulness and of active ungodliness is called hell, which latter term always implies more than the term death does, at least in their New Testament significations; it implies not merely carelessness and indifference on the part of the person in a state of sin and ungodliness, but unrest, torment, trouble, wickedness of mind, hardness of heart and reprobateness of the one in that unhappy state. Again, where in the book of Revelation there is mention made of a lake of fire and brimstone into which the wicked are cast and in which Satan is bound for a thousand years, &c., it means merely the state of the wicked, a state of reprobation, of deathlike sinfulness, of active ungodliness, of unrest and torment; and this state pertains to many as to one, and to one as to many. This is the state in which those are represented as being who worship the beast or his image, or any false gods, idols of the eyes, of the heart, or of the imagination, to the neglect of the worship of the true God, the omnipresent infinite and invisible Deity, or to the dishonor of him by bestowing the worship due to him upon any visible object whatever; for the infinite and infinitely glorious Deity is neither an object of the sense nor of the imagination, and therefore cannot be worshipped under any visible or conceivable form.

Thus, all the heathen who worship false gods are in this unhappy state, and the greater their degree of light and knowledge, or the greater their advantages for acquiring light and knowledge showing their religious system to be false, the greater is their condemnation and the more miserable and desperate their condition. They are without the knowledge of the true God, and without any reasonable religious and holy hope in the world. In this state are particularly all idolatrous Christians, those who worship the saints, relics or images, those who worship men or women or mankind personified in

any way; and even the Trinity must necessarily be an object or a compound object of the sense or the imagination, whether it should be worshipped we leave men to judge for themselves. The Deity is not pleased to have the honors that are due to him alone given to any object whatever; he does not suffer his glories to be given to another, nor his praise to graven images; and those who worship false gods, especially those who possess or may possess knowledge to teach them that their practice is wrong, will realize the experience of the penalties of their offences in themselves. Whosoever lives a truly godly life, the name of that one is written in the Book of Life.

And where it says in Revelation, Ch. XX., verses 14 and 15, that "death and hell were cast into the late of fire, and whosoever was not found written in the Book of Life was cast into the lake of fire;" here death and hell and the lake of fire mean three phases of the state of the wicked, only waxing more intense in misery and wretchedness until the lowest point is reached in the lake of fire burning with brimstone. This last, it appears is the most miserable state in which human beings can be, namely, in the state represented symbolically by the lake of fire. That person is in the death-state who is living in sin, in the gratification of the lusts of the flesh and of the natural mind, and who is careless and indifferent as to the worship of God and the practice of true godliness. That person is in the hell-state who is living in sin, in the gratification of the lust of the flesh, and of the mind, and not only careless and indifferent as to the worship of God and the practice of godliness, but actively engaged in the practice of all ungodliness. While the one in the death-state is at home in the flesh like Moab settled on his lees, sunk and degraded in ignorance, dark-mindedness, superstition and sin, with none of the light of truth and of God shining on his soul, the one in the hell-state is not only degraded in ignorance, superstition and sin, but is an active agent in the service of Satan, in the practice of all ungodliness, and with all this experiences in himself the troubles and the torments characteristic of hell; while the one in the state represented by the lake of fire burning with brimstone, we must consider to be in the worst possible condition of ungodliness, of despair, of hopelessness and of torment in which a human being can possibly be, mentally. Shall we pronounce that there is no possibility for one in this last-named condition, or in either of these conditions of the wicked, to become better and reform their life, to become, in short, the child of God by the practice of active godliness? We shall not indeed pronounce thus. Men of never so evil a character and disposition have it in their power to turn from their evil way and manner of life, from their evil and unholy dispositions and practices

and become holy, just and good: become, in short, children of God by adoption and grace. To affirm that men cannot turn from their evil way and be good, is to affirm that they are bound by some power to be evil even against their will, which is the most absurb and groundless of doctrines. All men are free moral agents, which means, that they may, as they will, choose to be good or evil in life: and consequently possessing this power, men are never sunk so low but that they can, with the grace of God, which is always vouchsafed to the repentant and to those who, from a course of sinfulness, resolve to live a new life of active godliness, become good and do good, and realize that they are the children of God by the faith of Jesus Christ. But alas! what a miserable condition men are in so long as they continue to live in sin and ungodliness, so long as they continue to neglect, or to be indifferent about their duties to God, so long as they persist in living unholy and ungodly lives, so long as they are estranged from God, enemies to God, indifferent as to him or his cause, and actively engaged in the service of Satan and of sin! What a miserable state of darkness, of superstition, of death-like ignorance, of wickedness and torment they are in! They are dead while they live, or they experience the pangs of remorse, the torments of a troubled conscience, or the chastising hand of a justly incensed Deity. Why should they not turn from their evil way and live? What prevents them from doing so? Why should they not leave off their old wicked ways, their ungodly practices, and bear the cross of self-denial in the paths of true godliness? Why should they not resurrect themselves, so to speak, from the state of death or hell, or a worse, in which they are, and by prayer and faith, and the grace of God, which is always vouchsafed to the penitent, live the new life of godliness in the spirit. They can do so certainly; we have said they can; for they are free moral agents, and being such, they can become and do good if they will, and God will assist them in doing it. The assistance of God the penitent will obtain by faithful, trustful prayer to him, and by firm resolution to persevere in his cause in the way of active godliness. There is nothing, therefore, to prevent the wicked, sinning human beings from becoming the servants, and, at the same time, the children of God. Servants they have to become first, but they will be well repaid for their services in becoming children of God and joint heirs with Christ, inheritors of the kingdom of heaven.

Likewise in the two last chapters of Revelation, where it describes the new heaven which the sons of men were to see and experience in due time, it means that there should be in the future (I mean the future as regards the time of the giving of the prophecy) a happy

era for mankind, wherein truth should largely prevail, when men generally should live holy and godly lives, should deny the flesh and practice the life of holiness in the spirit. The same blessed era is foretold in Isaiah, Ch. LXV., verse 17, as follows: "For behold I create new heavens and a new earth, and the former shall not be remembered nor come into mind. But be ye glad and rejoice forever in that which I create; for behold I create Jerusalem a rejoicing and her people a joy." And in Ch. LXVI. of the same book, verse 22, and so on, it says, by way of promise to the Israelites: "For as the new heavens and the new earth which I will make shall remain before me, saith the Lord, so shall your seed and your name remain. And it shall come to pass that from one new moon to another, and from one Sabbath to another, shall all flesh come to worship before me, saith the Lord. And they shall go forth and look upon the carcasses of the men that have transgressed against me; for their worm shall not die, neither shall their fire be quenched; and they shall be an abhorring unto all flesh." This last verse is by way of contrast to show the happy and the miserable state of the righteous and the wicked, which as commonly we see would exist together in the world. It means, however, that at the period indicated the good would be far in the majority, and that the age would be characterized morally as an age of godliness and of blessedness. And this new creation, spoken of by Isaiah, is the regeneration or moral change to be affected in mankind spoken of in the New Testament, especially explained in the Gospel of John. In like manner in the second Epistle of Peter, Ch. III., verse 13, it says: "Nevertheless we, according to his promise, look for new heavens and a new earth wherein dwelleth righteousness," which means the same thing, namely, the regeneration which should be effected among mankind.

In like manner, as to the Judgment, God is the supreme judge, but the judgment is meted out to mankind while in the condition of human beings. How it may be as to spiritual intelligences in the future existence I do not pronounce, but shall speak of this subject in a subsequent discourse. God gives to every man happiness or misery according to his works. As in Jeremiah, Ch. XVII., verse 10, it is said: "I, the Lord, search the heart, I try the reins to give to every man according to his works and according to the fruit of his doings." And in Jeremiah, Ch. XXXII., verse 19, the prophet, in speaking of the Lord in his dealings with men, says: "For thine eyes are open upon all the ways of the sons of men, to give every one according to his ways and according to the fruit of his doings." And in Matt., Ch. XVI., verse 27, it is said: "For the Son of Man shall come in the glory of his Father, with his angels, and then he

shall reward every man according to his works." And to show that this judgment pertained to man in this life, it says, in the next verse: "Verily, I say unto you, there be some standing here that shall not taste of death till they see the Son of Man coming in his kingdom." They should not taste of death till they should see this judgment taking place or experience it in themselves. And in Romans, Ch. II., verse 6, the Apostle, in speaking with regard to God's dealings with man, says: "Who will render to every man according to his works." And in Rev., Ch. XXII., v. 12, the spirit says by the prophet: "And, behold, I come quickly, and my reward is with me, to give every man according as his work shall be." It is plain, therefore, from all this, that God does not condemn men for their inherent proneness to sin, or what may be called their original inclination to sin, but for their sinful acts. He judges every man according to his works, that is, the man stands justified or condemned before God according as the acts of his life are good or evil; and his conscious experience tells him whether he is a justified or condemned man. In the symbolical representation of the judgment found in Rev. XX., verses 12–13, it says: "And I saw the dead, small and great, stand before God, and the books were opened; and another book was opened, which is the Book of Life; and the dead were judged out of those things which were written in the books, according to their works. And the sea gave up the dead which were in it; and death and hell delivered up the dead which were in them; and they were judged every man according to their works. And death and hell were cast into the lake of fire. This is the second death. And whosoever was not found written in the Book of Life was cast into the lake of fire." Here the prophet, in his vision, sees the dead, small and great, stand before God, and he sees the books opened which books represented the acts of the individual lives; and he sees another book opened, the Book of Life, which represents the acts of the life of the godly; and he sees the dead judged out of those things which were written in the books, namely, according to their works. Men stand justified or condemned in their own consciences before God. And he sees death and hell cast into the lake of fire, which means that those who were in the death-state, and those who were in the hell-state of ungodliness should become into a worse state of misery, wretchedness, and desperation. And he sees whoever was not found written in the Book of Life, which means the ungodly, cast into the lake of fire, which is here called the second death, and doubtless means a death in sin and wickedness more effectual, more intense, so to speak, than that which the death-state, or the hell-state spoken of before allowed of. Hence at the time

that this part of the prophecy refers to, it appears there should be two remarkable classes of mankind, namely, the godly and the extremely wicked; and that those of an intermediate character between the wholly godly and the ungodly, would have a tendency to wax worse, becoming extremely ungodly, sinful and wicked; while in the following Chapters, XXI. and XXII., is depicted the new heaven, the new Jerusalem, the happy and blessed state of the godly, which contrasts remarkably with the miserable and desperate state of the wicked, of those who were in the state represented by the symbolic lake of fire, the entirely ungodly and desperately wicked. In the mean-time, my friends, it is well that all should cultivate firm and unwavering faith in the power and benevolence of the Deity to effect, in His all-wise providence, that they may, after their natural death, live consciously, happily, and eternally, in the spirit world.

On the Cross of Christ.

Galatians VI., 14: "But God forbid that I should glory, save in the Cross of our Lord Jesus Christ, by which the world is crucified unto me and I unto the world."

The apostle Paul in his letter to the Galatian Christians admonishes them against the teachings of those amongst them who contended for the continuance of the old Levitical regime, especially as it regarded the rite of circumcision. For, he says in the two verses immediately preceding that in which our text is found: "As many as desire to make a fair show in the flesh they constrain you to be circumcised only lest they should suffer persecution for the cross of Christ. For neither they themselves who are circumcised keep the law, but desire to have you circumcised that they may glory in your flesh." The original Jewish converts to Christianity were, for the most part, warmly attached to the rites of the old Mosaic dispensation, and prided themselves especially in the distinguishing mark of circumcision. The first fifteen bishops or presiding elders of the Christian Church at Jerusalem, history or tradition informs us, were circumcised. It was no wonder that the example of the parent Church at Jerusalem should have been followed by the Churches which came to be planted throughout the provinces of the Roman Empire, particularly by the Jewish converts of those churches; and here we find this very class of converts in the Church of Galatia adhering scrupulously to the old rite of circumcision contrary to the will of the apostle to the Gentiles, who says (literally) in his letter to them: "Let it not be to me to glory save in the cross of our Lord Jesus Christ by which the world is crucified unto me and I unto the world. For in Christ

Jesus neither circumcision availeth anything nor uncircumcision, but a new creature." And in another place in the same Epistle (Gal. V, 6), he says: "For in Jesus Christ neither circumcision availeth anything nor uncircumcision, but faith which worketh by love." And, again, in I. Cor., VII. 19, he says: "Circumcision is nothing, and uncircumcision is nothing, but the keeping of the commandments of God." It is evident, therefore, that the apostle Paul did not place godliness or true Christianity in the practice of the old rites and ceremonies of the Mosaic dispensation, but in faith which worketh by love, in the keeping of the commandments of God, or, in other words, in the being a new creature; in the living a new life of true practical godliness. With the introduction of Christianity the old rites and ceremonies of the Jews were abolished to those who would accept of the new religion. True, the Christians substituted other rites and ceremonies for the old Jewish ones that were done away, such as baptism, that stood for circumcision, as the initiatory rite by which individuals were admitted into the Church, and the Lord's Supper, which represented the Jewish pascal feast, and the Jewish sacrificial ritual. But the essence of true Christianity considered as the true religion always consisted, as the apostle plainly enough intimates, in the being a new creature, in the keeping of the commandments of God, in the living the new and entire life of practical godliness. The Jews gloried in their old Mosaic ritual, and it is said that the farther they were removed in time from their great Lawgiver the greater was their veneration for him and the stronger their belief in the miracles he was represented to have wrought. But Paul, who in his youth had so firmly supported, had ere this ceased to have confidence or to glory in the old Mosaic institutions, and represents himself as deriving his confidence and glory from a different source,—a source of confidence and joy not heard of in the times of the old dispensation,—namely, in the cross of our Lord Jesus Christ, by which the world was crucified unto him, and he unto the world.

But some may ask how could he have such confidence and glory in that of which, if it represented reality, he had no personal experience, for we have no reason to say that Paul ever saw Jesus Christ or his cross?

The answer to this is, *first*, that if he had in his mind a literal crucifixion of Christ, the way in which he could contemplate and glory in it was *by faith*, depending upon the information, oral or written, which might have come to his knowledge concerning it; and this is a way in which all may, if they will, contemplate and glory in Christ crucified, as the exercise of faith, especially if it be at all reasonable

to the mind, is and has always been accounted legitimate. If the Gospel's representation of the crucifixion means a literal event, then Paul gives us on faith that which if we accept at all we must accept *on faith.*

Secondly, if the Gospel's representation of the crucifixion had not a literal signification but symbolised something accomplished in real individual life, then Paul knew well that in which he had confidence and glory, for he experienced it in his own life, that is, he had a most intimate personal experience of it. It was that by which the world was crucified unto him and he unto the world. It was that which he preached, which to them that perish,—them that are dead in sin, absorbed by the world and its fashions, the flesh and its allurements, and are indifferent to the practice of self-denial and active godliness, —is foolishness; but to them that are saved,—them that understand and practice it,—is the power of God and the wisdom of God.

The contemplation and practice of the cross of Christ as understood in this latter sense, the self-abnegation and devotion to the cause of God implied in it, have a sanctifying effect upon the heart which imparts true life to the soul and turns the mind from flesh and sense heavenward and to God. While it humbles the temper and disposition it purifies and elevates the soul, and inspires the man with holy impulses and with heavenly aspirations. It teaches man his own nature and character, and makes him acquainted with the nature and character of God. It brings him into communion with the Father of Spirits, makes him realise his own Sonship, and experience in his heart the sanctifying influences of the holy spirit. Such a state does a continued contemplation and practice of the cross of self-denial, symbolised by the cross of Christ, an unreserved and invariable practice of godliness, bring one to.

But the continued practice of active godliness must go hand in hand with the contemplation or practice of the cross of self-denial. It will not do to waste and emaciate the body by fasting and prayer and perform no active work for God or man. Nobody doubts that the monks and hermits, who lived an ascetic life upon a scanty subsistence of coarse food and clad in the coarsest garments, practised self-denial. They did indeed, but they did not live the life of active godliness which the Gospel requires. They neglected, they were averse to, the performance of the active duties of life which each one owes to perform for himself and his fellow-men. It has been aptly said that "they lived like drones in a beehive," supported as they were by the charity of an industrious but ignorant people whom they deceived.

Nor is the so-called religion of those who incline to say much

about godliness but do nothing in its practice, who are inclined to preach but do not carry out in their life and conversation the good principles which they inculcate; who do not stoop to the humble task of the performance of those duties which are incumbent on all and which the Gospel requires, nor is this so-called religion, I say, much if any better than that of the ascetic monks and hermits.

There are only too many of that class of men in the world who say too much and do too little, and who, in the common way of speaking, are severely orthodox in order to the preservation and perpetuation of a certain creed, or a certain number of *opinions* mutually dependent on each other which they have conjured up in their mind, which if they can be understood at all will be found to be quite as inconsistent and absurd as those who propound them, men who are so selfish, uncharitable, and intolerant, that they would not if they could suffer any other opinions than their own concerning religion to exist or be perpetuated.

Some such men are very desirous of raising large and costly structures, commonly called "churches," for the practice in them of their form of worship, as if a large and costly edifice could in the estimation of men of experience and judgment make their creed more true, their sect more respectable, or their worship more acceptable to the Deity. Some of them also incline to vaunt themselves upon their superior learning and eloquence, and estimate themselves very highly upon these grounds, (so that it has been said with some degree of truth that theological pride is the worst species of pride) as if men of an humbler frame of mind, an humbler carriage, may not be much better learned than they; and what does learning amount to if not to actual evil, if it be not employed in the inculcation of truth in all things, and, speaking religiously, of the practice of self-denial and active godliness, the worship of God in spirit and in truth, among mankind? In my own experience I have observed that far too much of the idea of worldly self-interest comes into play in the case of some teachers of religion, which is indeed directly contrary to the spirit of the Gospel; for such men as I allude to do not wish any competition from anything that is not exactly in accord with their views lest it might endanger their status in any way; and if any such happens to turn up they either openly or secretly oppose it, sometimes with great rancour; not considering as they should that men are of different characters, different turns of mind, that, in common parlance, men's minds are not all run in the same mould; that if men of equal or better education than theirs have on some points a little different views from them, their views are at least worthy of consideration and respect; and that if they have a right

to rise in opposition and grow angry, others have the same right; and that there should be consideration and charity rather than intolerance and secret or overt persecution used by them in such cases. They in particular who stand up as teachers and examples of godliness to the people, should manifest as much as possible the spirit and character of Christ, they should be swift to hear, slow to speak, slow to wrath, always remembering that the wrath of man worketh not the righteousness of God.

The practice of self-denial and active godliness, which includes the worship of God in spirit and in truth, and is that only which is worthy of the name religion, should be a practice of the daily life. It will not do only for stated times; religion is not to be put on and taken off with the Sunday clothing. When once put on it should never be put off, laid aside, or dispensed with. One should always be clothed with the righteousness of Christ, the garments of salvation, which are pure and spotless, and not with the garments of one's own wicked practices, one's own natural depravity, which are in the sight of God as filthy rags. The old man, the old Adam, with his deeds of sin has to be "put off," and the new man, Christ Jesus, with his entire life of righteousness and holiness has to be "put on," and having been put on should never be put off.

The cross of Christ as rightly understood is the means which infinite wisdom has devised by which to bring men to the knowledge of the truth and to the kingdom of heaven. It is by the practice of the cross of self-denial, which the cross of Calvary represents, that human beings can attain to the knowledge of God, and to an inheritance in the kingdom of heaven as God's children.

The whole Gospel representation, therefore, of the crucifixion each one should realizingly contemplate for one's self in order to their self-abasement, their becoming intelligently and reasonably humble, their becoming sanctified in heart and in life, peaceable, kind, and gentle in temper and disposition, and full of the knowledge and love of God and of love to man. The practice of self-denial and active godliness tends to lowliness of heart and contrition of spirit, which is of so great worth in the sight of God, it tends to humble the proud and haughty spirit.

Pride is the great bane of our race. Men are accustomed to think much more of their human dignities than of their duties to God, or to their fellow-men. "From whence," as according to James, Ch. IV., 1–11, it is said, "come wars and fightings among you? Come they not hence even of your lusts, that war in your members? Ye lust and have not: ye kill and desire to have, and cannot obtain; ye fight and war, yet ye have not, because ye ask not. Ye ask and

receive not, because ye ask amiss, that ye may consume it upon your lusts. Ye adulterers and adulteresses, know ye not that the friendship of the world is enmity with God? Whosoever, therefore, will be a friend of the world, is the enemy of God. Do ye think that the Scripture saith in vain: The spirit that dwelleth in us lusteth to envy. But he giveth more grace: Wherefore, he saith, God resisteth the proud and giveth grace unto the humble. Submit yourselves, therefore, to God. Resist the devil, and he will flee from you. Draw nigh to God, and he will draw nigh to you. Cleanse your hands, ye sinners, and purify your hearts, ye double-minded. Be afflicted, and mourn and weep; let your laughter be turned to mourning and your joy to heaviness. Humble yourselves in the sight of the Lord, and he shall lift you up." How much envy and discord and contention and bloodshed and strife, how many long and bloody wars, which have desolated nations, filled the land and sea with blood, and caused unspeakable sufferings to human beings, might have been avoided, if only these injunctions of the Apostle had been attended to as they ought to have been by those who had the control of human affairs! How much disquietude and ill-feeling, and wrangling, and brawling, which are too common to private life, and too often to the social and family circle, might be avoided by attending to these simple injunctions. Humble yourselves in the sight of God. Be kindly affectioned one toward another. Love thinketh no evil. Thou shalt love thy neighbor as thyself. Charity suffereth long and is kind, &c. Intelligent, genuine humility, which arises from the cultivation of a pure and contrite spirit, elevates the soul and unites it to God, while that humility, which is assumed and spurious, and arises from the practice of hypocrisy, only debases the soul and separates it farther from God, from his knowledge and his love. God resisteth the proud, but giveth grace unto the humble. Submit yourselves unto God, practise unfeigned humility, live soberly, honestly, and righteously in the active practice of godliness before him, in the fulfilment of your duty towards God and towards men. Fight valiantly and faithfully, under the banner of Christ, glorying in the practice of self-denial and all godliness, which the Gospel representation of the life and crucifixion of Christ symbolizes. Put on the spotless robe of the righteousness of Christ, and be no longer clothed with the garments of your own natural depravity made manifest in an unrighteous and unholy life which will avail you nothing before God, but will separate you farther from his presence, and his peace, and from the glory of his power.

The preaching of the cross, says the apostle, is to them that perish foolishness, but to us that are saved it is the power of God. The

bearing, the carriage, of the humble and godly Christian, causes the proud spirits of the world to blush and hide their heads for shame. Resist the devil, not by opposing pride to pride, not by opposing railing to railing, cursing to cursing, evil to evil, but contrariwise, lowliness of heart, a peaceable and gentle temper and disposition, blessing and goodwill, and all soberness and exemplariness of life. By following such a course you will acquire more divine strength. God, who resisteth the proud, but giveth grace to the humble, will increase strength to you. By his assistance you will become effectual to quench all the fiery darts of the wicked one, and will acquire a continuous victory over the world, the flesh, and the devil. The gates of hell shall not prevail against the intelligently humble, and the actively godly Christian. Cleanse your hands, ye sinners, and purify your hearts, ye double-minded. The double way and the froward mouth are abominations to the Lord. He resisteth the proud but giveth grace unto the humble. He knoweth them that are his, them that obey him in all sincerity though in the midst of a wicked and perverse generation, who will in their seasons of trouble and all through life always experience the comforts of his spirit and his assisting grace. The wisdom of the world is foolishness with God, but none should despise that which the wisdom of God devised for the salvation of men to bring them to the knowledge and the sonship of God, and make them inheritors of the kingdom of heaven. None should despise the way of the cross, the way of self-denial, and of active godliness. Let it not be that men shall glory save in the cross of the Lord Jesus Christ, by which the world is crucified unto them and they unto the world. Of an humble and a contrite spirit at the foot of the cross they are nearest to God and farthest from the wicked ways of the world. They know that the friendships and the wicked ways of the world are enmity with God, and therefore they prefer, as wise men, to follow in the way of the cross, patiently to ascend the Calvary of entire self-abnegation, and there, having crucified the flesh, with its affections and lusts, obtain a complete victory over the world, with its pride, its pomps and allurements over the flesh, with its seductions and evil propensities, and over the devil, with his wily temptations and deceptions, and his sudden and violent assaults. Except ye be converted and become as little children, children of God, ye can in no wise enter into the kingdom of heaven. No man cometh to the Father except by the way of the Son, and that way is marked out in the Gospels with sufficient plainness for all to follow in it. Ye must be born again, even born of the Spirit of God, before ye enter into the kingdom of heaven. Ye must begin, continue, and perfect the regeneration, for in Christ Jesus neither circumcision

availeth anything nor uncircumcision, but a new creature. Ye must not glory in anything which the world presents or affords, but your source of glory must be in this, even in the cross of the Lord Jesus Christ, by which the world becomes crucified unto you and you unto the world. Not that you are to be indifferent as to the welfare of those whom the world has engulfed in the vortex of its deceptive allurements, its pleasures and its fashions, but to aim both in will and deed to do them good and pluck them, as brands from the burning, or from the net in which the world and Satan have entangled them as captives at their will. You are soldiers in the cause of God, and yours is a subjective and an objective warfare; you must bring yourselves and all that you have, and are, in thought, word, deed and effect, into subjection to the obedience of Christ; and you must be actively engaged in a conquest for Christ in the world; you must be engaged in gaining souls for Christ from among the world's people; you do not come to bring the righteous, but sinners to repentance; and you become all things that are good and holy and honorable and true to all men, that you may by all means save some and bring them to truth and holiness. "For," says the Apostle, I. Cor. Ch. I., 21–25: "after that, in the wisdom of God, the world by wisdom knew not God; it pleased God by the foolishness of preaching to save them that believe. For the Jews require a sign, and the Greeks seek after wisdom; but we preach Christ crucified, to the Jews a stumbling-block and to the Greeks foolishness. But unto them which are called, both Jews and Greeks, Christ, the power of God and the wisdom of God." Again the Apostle speaks thus to the Romans (Romans X., 4–11): "For Christ is the end of the law for righteousness to every one that believeth.* For Moses describeth the righteousness which is of the law, That the man that doeth those things shall live by them. But the righteousness which is of faith speaketh on this wise: Say not in thine heart: Who shall ascend into heaven (that is, to bring Christ down from above)? or, who shall descend into the deep (that is, to bring up Christ again from the dead)? But what saith it? The word is nigh thee, even in thy mouth and in thy heart; that is the word of faith which we preach. That if thou shalt confess with thy mouth the Lord Jesus, and shalt believe in thine heart that God hath raised him from the dead, thou shalt be saved. For with the heart man believeth unto righteousness, and with the mouth confession is made unto salvation." No one can confess truly that Jesus is Christ but by the Holy Spirit, and this confession is made in the realizing sense of one's self being

* Christ is the perfection of moral and religious character which the law had in view.

born again, being a child of God, a new creature, raised from a death of sin to a life of righteousness and active godliness. The word is nigh thee, even in thy mouth, that is, the word of faith which we preach. For the Jews require a sign, but no sign is to be given them; and the Greeks seek after wisdom, but the *wisdom* which they seek will not avail them. But we, says the Apostle Paul, preach Christ crucified, unto the Jews a stumbling-block, and unto the Greeks foolishness; but unto them which are "called," both Jews and Greeks, Christ the power of God and the wisdom of God.* The Greeks were characteristically a sagacious people, but their wisdom did not avail them, while they continued in their state of Paganism to penetrate the mystery of Christ, the whole of which they counted foolishness; but which the Jews found, and do find, to be a stumbling-block, as the proud, and all who refuse to humble themselves before God, will always and inevitably find it.

On Regeneration.

John I., 12–13: "But as many as received him, to them gave he power to become the sons of God, even to them that believe on his name; which were born, not of blood; nor of the will of the flesh nor of the will of man, but of God."

Regeneration is the key note of the Gospel. It is the Alpha and the Omega, the beginning and the ending, the first and the last of the true Christian religion. Without it, all other things, such as carnal ordinances, rites and ceremonies, worldly wisdom, influence and wealth, are accounted as nothing, yea, as less than nothing, and vanity. "Except a man be born again he cannot see the kingdom of God." This is a proposition which the worldly philosopher, with all his worldly wisdom, cannot understand. He asks in accordance with his natural reason: How can a man be born when he is old? Can he enter the second time into his mother's womb and be born? He is then told that the birth spoken of is a spiritual, not a natural birth, that that which is born of the flesh is flesh, and that which is born of the spirit is spirit, and not to marvel at the announcement of the fact, that he must be born again. Moreover, he is made acquainted with the modus operandi of this new birth by an illustration: That the wind bloweth where it listeth, and one hears the sound thereof but cannot tell whence it cometh and whither it goeth:

* By those who rightly understand Christ crucified, it is found to be the power of God and the wisdom of God; but to those who do not rightly understand it, whether they be within or without Christianity, it must appear as the Apostle says, foolishness. The proper understanding, you see, is quite simple.

so is every one that is born of the spirit; which last merely shews that the new birth takes place in the Christian in accordance with the will and pleasure of Deity; and that it consists in a change of heart and of life from evil to good, from unholiness to holiness, from selfishness and indifference as to heavenly things, and from active ungodliness, to a life of unselfishness and of active godliness.

That which is born of the flesh, is flesh, and that which is born of the spirit is spirit. As the natural production or birth of the natural being, which is a result of change in material or spiritual existence, and has always within the experience of man taken place, is termed the old creation; so the supernatural birth, or the regeneration of the human being, which is a moral change in the heart and the life of the individual, is termed the new creation. Both of these creations, it is easily seen, are effected by the Creator: for no effect can take place without his agency,—the one in accordance with the ordinary operations of nature, the other, in the common understanding of it, a supernatural change of the same human being, morally and spiritually, or a birth from sinfulness to holiness, from unrighteousness to righteousness and active godliness. These two births, therefore, are now made clear to your mind, the birth according to the flesh or according to nature, and the birth according to the spirit or the supernatural birth, and that both these births are the effects of change, the one a natural or physical change in the way of continued production in natural existences, the other a moral change in the heart and life of the individual. This last is literally translated from the original "the birth from above." The distinction between these two births is clearly set forth in the New Testament and especially in the epistles of Paul.

In the eighth chapter of the epistle to the Romans, when speaking of those who live according to the flesh and according to the spirit, the apostle says: "For they that are after the flesh do mind the things of the flesh, but they that are after the spirit the things of the spirit. For to be carnally minded, is death, but to be spiritually minded, is life and peace; or more literally, the minding of the flesh is death but the minding of the spirit is life and peace. Because the carnal mind, the minding of the flesh, is enmity against God; for it is not subject to the law of God, neither indeed can be. So then they that are in the flesh cannot please God." They that are in the flesh, therefore mean they that live according to the dictates and lusts of the flesh, and feel at home in the flesh, as Moab settled on his lees, or as the apostle expresses it, they that do mind the things of the flesh; for the carnal mind is enmity against God, for it is not subject to the law of God, neither indeed can be.

"But," says the apostle, in speaking to the Christian Romans: "Ye are not in the flesh, but in the spirit if so be the spirit of God dwell in you." They that are in the spirit must consequently mean that they that live according to the dictates, inclinations, and requirements of the Holy Spirit, for the spirit here spoken of, has reference to the Holy Spirit. For, says the apostle in this connection; "Now if any man have not the spirit of Christ, he is none of his. And if Christ be in you, the body is dead because of sin, but the spirit is life, because of righteousness. But if the spirit of him that raised up Jesus from the dead dwell in you, he that raised up Christ from the dead shall also quicken your mortal bodies because of his spirit that dwelleth in you.

I have, in a preceding discourse, explained the New Testament sense of Christ being raised from the dead, or, in other words, the resurrection. Now that raising from the dead, or resurrection, is just what takes place in the work of regeneration in the individual, in short, the New Testament sense of the resurrection from the dead spiritually is synonymous with the sense of the regeneration, or new birth and life. "If Christ be in you the body is dead" because of sin, means that the regenerated person is dead to the world and the flesh by the obedience of Christ, which he practises.

But if the spirit of him that raised up Jesus from the dead dwell in you, if you are possessed and actuated by the same spirit that effected the resurrection or regeneration in Christ, even so this same spirit that dwelleth in you shall also quicken your mortal bodies and effect a spiritual resurrection or regeneration in you. In the first epistle according to John, Chapter III., verse 9, it is said: Whosoever is born of God doth not commit sin; for his seed, (that is, the seed of the Holy Spirit which effects the new birth,) remaineth in him; and he cannot sin because he is born of God. Such an one is continually on the watch against sin, against the wiles of Satan and the operation of seducing spirits and teachings of devils, and does not for a moment consent to yield his members as instruments of uncleanness or of any evil work which tends to ungodliness. Such a one, while continually engaged in waging a spiritual warfare against the wickedness of the world, the flesh and the devil, and all the agencies, visible and invisible, of the evil one; walks circumspectly, not as a fool, but as a wise man, redeeming the time, since the days are short and evil, and resolves to accomplish some worthy work in the cause of God and of truth while on this earthly scene. Thus, it is seen, the regenerate person has to wage a twofold warfare, first to keep in subjection himself, with his bodily affections and lusts, his inordinate passions and appetites, of whatever kind and tendency these may be, and,

secondly, to wage an aggressive warfare upon the world of sin and wickedness in order to bring many ignorant, depraved, and sin-sick mortals to a knowledge of the truth, and to a life of holiness, righteousness and active godliness. The truly regenerate man or woman is never content unless when actively engaged in the service of God. Indifference to the cause of God, or neglect of the performance of our duties toward him in advancing his cause of truth and righteousness in the world is sin, which sooner or later brings its reward, and which the truly regenerate person does not become guilty of. Such an one is a continually operating power for God in the world. Knowing that negligence in or indifference to the performance of one's duties to God in the advancement of his cause among men is as culpable as is active ungodliness. Such an one also sees plainly that his work for God is a life-long work, that it is never so well or so thoroughly accomplished that nothing remains to be done.

Alexander, and the Romans after all their conquests, could not have been ignorant of the fact that there still remained a wide extent of the world where their legions had never trod, where the ensigns of their nations had never floated to the breeze. Even so it is in the case of the regenerate human being, after all his labor of love in the service of God, he still sees an abundance remaining for him to do, a world of sin and wickedness for him to conquer; he still sees the innumerable legions of Satan arrayed in arms, temporal and spiritual, against him, and waging a continual and destructive warfare against the cause of truth and righteousness in the world, against the cause of God and his Christ, to the destruction, temporal and spiritual, of the bodies and souls of men. Seeing this he is grieved to the heart, and resolves so long as his physical powers will admit him, to be actively engaged in the service of his Master, and not only to achieve conquests in the cause of godliness himself, but to raise up others also who will follow in his steps and do likewise. His precepts, and his example, his strength and his energies are all exerted to the same end for the accomplishment of the same great object.

Although these two kinds of creation which I have mentioned have always been effected so far as our experience teaches us, yet it is only within the last nineteen centuries that the spiritual creation, or the regeneration represented in the New Testament, has come prominently into view, and become an important subject for consideration among mankind. John came preaching the baptism of repentance for the remission of sins. Repentance here means a change of heart and of life, and like the new birth, is, in a sense, synonymous with regeneration. Repentance may be called the beginning of regeneration, which in its beginning has been aptly compared to the flower

in the bud, and when perfected to the flower in full bloom. Regeneration is usually gradual in its progress. Analogous to the operations and processes in the vegetable world, there is, so to speak, first the bud, then the blade, then the ear, after that the full kernel in the ear. Still it is not altogether improbable that regeneration may, in some cases, be brought to perfection in very short spaces of time; I need not here say instantaneously or momentarily; for what hinders that the wicked, sinning human being may not at once turn from his evil way and be good, may not at once repent of, be heartily sorry for, his sins, and resolve to live a new life, a life of active godliness for the future: thus repenting, thus living, he becomes a new creature by the operations of regeneration and the renewing of the Holy Spirit. To say that one cannot with the assistance of God, do so, is absurd. It is as much as to say that one must be, and live, evil, whether one will or not, although we regret to have to say that very few cases of instantaneous or momentary conversion come within the range of our own experience.

From the period of its foundation the Christian Church has been distinguished as the Church of the regeneration, the Church in which the preaching of the doctrine of regeneration was practised.

Baptism, with repentance, constituted the door by which the people might enter into the Christian Church, and the regeneration begun at the entrance into it was perfected in it; and thus it was that all who were admitted into it in the prescribed way, and lived therein in the way and manner ordained they should live, were called the children of the regeneration, the sons and daughters of God, by whose spirit their regeneration had been effected: "being born again," as expressed in the first Epistle of Peter, chapter 1, verse 23, "not of corruptible seed, but of incorruptible, by the word of God which liveth and abideth forever."

Thus, while man is the father of the children of the old, or Adamic creation, God is the Father of the children of the new creation, or the regeneration, who has begotten them by his Spirit, by the incorruptible seed of his word, which liveth and abideth forever. And now, since all the children of the regeneration have God for their Father, is it not important that they should do their father's will, should continually be about their Father's business? If men generally are accustomed to obey their earthly fathers with such readiness and willingness, is it not important that they should obey their heavenly Father, the Father of spirits, and creator of all things, with a greater readiness and willingness? Is it not important that they should be prompt in doing his work, in fulfilling his commands, and in acting up to his requirements; in being in will and in deed, as he would have

them, all in subjection to the obedience of Christ, that is to say, the subjection which Christ yields to his heavenly Father! As many as received *him*, namely, the true doctrines of the Gospel, to them gave he power to become the sons of God. These are they which are born not of blood, nor of the will of the flesh, nor of the will of man, but of God. The sons and daughters of the regeneration were and are born of the spirit of God. As many as receive the truth of God, that submit to the teachings and leadings of his Spirit, to them gives he power to become the sons and daughters of God; they become daily more perfect by the operations of regeneration and the renewing of the Holy Spirit.

This doctrine of the regeneration had a prominent place in the early ages of the Christian Church. In the primitive times of Christianity it was well attended to and practised. But from the time that Christianity became the established religion of the Roman Empire in the fourth century, and afterwards, religion became a matter rather of mechanical observances than a state of holiness of heart, and righteousness of life, in the professing Christians. It is much to be desired that this doctrine be again more generally and more particularly attended to, and that the true life be again infused more generally into professing Christians; that, in short, the religion of the Spirit should be again restored, and that men should live individually and universally the life of holiness and of active godliness in the world, and not, as they have too long done, suppose they can live such lives by proxy.

Is not the prayer-meeting, where all are accustomed to meet together for mutual exhortation and godly encouragement, and to pray for each other as well as for all mankind, an excellent institution for the maintenance of true religion, and for the advancement of the cause of truth and righteousness in the world? The prayer-meeting, when properly conducted, tends to godliness, is a preventive to pride and selfishness, and induces humility and holiness of heart and righteousness of life among those practical professing Christians. It seems, indeed, proper and becoming, that in all Churches, even the largest, and, (shall I mention it?) the most wealthy and fashionable, each of the attendants, male and female, should be required to address audibly, and in a standing position, a short and fervent prayer to God; that a certain number should be appointed to do so for every time of meeting, so as to allow all to pray thus publicly within a given time, say a few weeks or months, and in order that as many of the people as possible should have the opportunity of thus praying, that the prayers of the officiating minister should be much shorter and more fervent than they now ordinarily are, and that his sermons also

should be brief, practical, plain, and to the point. Such a state of things would present signs of the restoration of the primitive Church, or the age of the regeneration, and would be mighty in its good effects for holiness and active godliness among mankind. But it is time that each one should practise the doctrines of the regeneration, and subduing in one's-self all that is contrary to that doctrine, cultivate and develop all the character of godliness, and all the characteristic Christian graces, the principal of which are love, joy, peace, patience, long-suffering, gentleness, faith, benevolence, charity, and active honest industry. It is time that each should remember that self-denial and active godliness are necessary for all to practise, and not only for a few out of mankind.

That there is not a better, a more spiritual state of religion in the Christian world, is a matter of regret; still there is reason to hope that a better time is near approaching, in which a more spiritual religion; a religion of the heart and of the life, a religion of self-denial and of active godliness will be practised so universally in Christendom, as to bear unmistakable marks of the age of the regeneration, or of the long expected millennium. Each one should do their part to introduce and perpetuate that happy era, and thus doing, thus living, they will live and die happier.

On the Future Life.

II. Corinthians, Ch. IV., verse 18: "While we look not at the things which are seen, but at the things which are not seen; for the things which are seen are temporal, but the things which are not seen are eternal."

The doctrine which more than any other characterizes Christianity and makes it characteristically different from all other religions is the doctrine of a future life. The apostle to the Gentiles cultivated and taught this doctrine. He inculcated it with the greatest assurance and the greatest firmness, as may be understood from a consideration of all his writings. In the first verse of the fifth chapter of II. Corinthians, the verse immediately succeeding the one which contains our text, he says: "For we know that if our earthly house of this tabernacle were dissolved, we have a building of God, an house not made with hands, eternal in the heavens." The whole tenor of the New Testament writings inculcates the Christian belief in a future life. It is true that this doctrine was, and is to some extent cultivated and taught in most, if not all other religions with which we have any acquaintance, but it has not been, that we are aware of, believed so strongly or cultivated with such assurance (although the Moham-

medans firmly inculcate it) in any other religion as in the Christian. For over eighteen hundred years the truly godly Christian has lived and died in the belief that he would live blissfully in the future. He has endured life's trials and afflictions and sorrows and discomforts and grievances and pains, in the firm hope that the happiness of his eternal future would more than compensate him for all that he had here endured. Following the apostle to the Gentiles in this respect he did not consider the sufferings which he endured in this present life as worthy to be compared with the glory which should be revealed in him and to him in the future life. In times of trial or suffering, amid the varied circumstances and vicissitudes of life, at home or abroad, on the bed of sickness and languishing, adrift upon the ocean, or helplessy separated from human-kind in the trackless forest or in the dreary wilderness, this belief has revived and strengthened his soul, and enabled him with composed countenance and peaceful heart to endure patiently all that might befall him from the adverse influences of the world, and to view with complacency his circumstances, whatever these might be. This belief raised him above the world of flesh and sense, of fleeting fashion and vain show, and enabled him to stand on higher ground, even heavenly, and to contemplate higher objects, even those that pertain to heaven, the redeemed and sanctified, and to the King of Glory, his Heavenly Father the Lord of Hosts himself.

How faint is the faith or hope in the future life of modern Christians when compared with that of those in primitive times! It is only as the view of the morning star making its appearance above the horizon and ushering in the day, as compared with the full view of the risen sun. As the Church grows older it appears that this faith grows weaker; and now the faith of Christians (not speaking of that kind of faith which is simply the offspring of ignorance and superstition) may be called in the main a general and tacit acquiescence in the long-received doctrine of the future life. Few now-a-days have that childlike, unwavering confidence of the primitive Christians. The early Christian believed that when he died he would go to heaven, where he would forever be with the Lord: and this his faith enabled him to expect with complacency the time of his dissolution, and to pass triumphantly over the dark valley of the shadow of death. Would that such a simple, a childlike, shall we say, a godlike faith of a blissful future life were more cultivated now by professing Christians! Would that with all their enlightenment and all the knowledge which modern advancement in science enables them to possess, people would come back again to the old ways of the early Christians, so far at least as the cultivating a firm faith in the future life is

concerned. It may be remarked that the early Christians lived in general better and holier lives than the modern Christians: that they lived lives of self-denial, crucifying the flesh with its affections and lusts, lives of active godliness in the spirit; and that thus living they were never afraid to die, as they always endeavored to be prepared to meet their Heavenly Father and Judge. The consciousness of a well-spent life gave them confidence in the hour of death, of their acceptance with God, and of their gaining admission into those heavenly mansions which God has prepared for them that love Him and live according to His requirements. There is no doubt that this was the case in general with the primitive Christians, and is the case with all who live alike godly lives and cultivate alike unwavering faith in the blissful future life which God will favor them with. There is no reason why people in general now-a-days may not live as holy lives and cultivate as firm a faith in the power and goodness of God and in a blissful immortality for themselves, as did the primitive Christians; and there is reason to believe that many, very many, do live alike godly lives and cultivate alike firm and simple faith in the power and goodness of God to effect a blissful immortality for them, as did the early Christians; and it is rather a matter of regret that Christians in general do not live and believe thus. Mohammed, though he did not pretend to understand how the resurrection would be effected, or the way and manner in which it would take place, still cultivated and inculcated a firm faith in the resurrection of the body and the future life of mankind. He relied on the power of God, who first created the body, to re-animate it or create it anew, and from the abundance of his goodness and mercy to afford a happy immortality to the good, and from his justice and wisdom to appoint the evil to a place of retribution as a reward for their iniquities. There is no reason why Christians, with all their intelligence, may not cultivate alike firm faith, why they may not inculcate it to the great comfort of all who need such consolation and to the great moral advancement of mankind. Most of the ancient religions or mythological systems were characterized by having a belief in some sort of the future life. This future state some of them, as the Egyptians, or those who believed in the doctrine of transmigration, placed on this earth, where they professed to believe the souls again would reanimate their old mansions after an absence of three thousand years: would again inhabit the earth and enjoy the comforts and beauties of the terrestrial existence for another period. Only some of the heathen mythologies particularly describe the intermediate state of the soul, but according to Herodotus, the Egyptians had it that it passed through the bodies of all the animals of the land and sea in the time

which intervened during its departure from and its return to the body. The ancient Greek and Roman mythologies, as well as those of some of the Asiatic nations, such as the Medes, Persians, and Bactrians, had it that the soul after its departure from the body was subjected to a judgment in the kingdom of the dead, and according as its merits or demerits preponderated in the real or allegorical scale so was its condition in the future existence determined. Plato in the Phædon represents Socrates a little before his death, when encompassed with a circle of philosophers, and discoursing with them on the arguments which prove the eternal destiny of man, as speaking thus: "When the dead are arrived at the rendezvous of departed souls, whither their angel conducts them, they are all judged. Those who have passed their lives in a manner neither entirely criminal nor absolutely innocent are shut into a place where they suffer pains proportioned to their faults, until being purged and cleansed of their guilt and afterwards restored to liberty, they receive the reward of the good actions they have done in the body. Those who are judged to be incurable, on account of the greatness of their crimes, the fatal destiny that passes judgment upon them hurls them into Tartarus, from whence they never depart. Those who are found guilty of crimes great indeed, but are worthy of pardon, who have committed violence in the transports of rage against their father or mother, or have killed some one in a like emotion and afterwards repented,—suffer the same punishment with the last, but for a time only, until by prayers and supplications they have obtained pardon from those they have injured. But those who have passed through life with a peculiar sanctity of manners are received on high into a pure region, where they live without their bodies to all eternity in a series of joys and delights which cannot be described." From such considerations, Socrates concludes that: "If the soul be immortal it requires to be cultivated with attention, not only for what we call the time of life, but for that which is to follow, I mean eternity; and the least neglect on this point may be attended with endless consequences. If death were the final dissolution of being, the wicked would be great gainers by it, by being delivered at once from their bodies, their souls, and their vices; but as the soul is immortal, it has no other means of being freed from its evils, nor any safety for it but in becoming very good and very wise; for it carries nothing with it but its good or bad deeds, its virtues or vices, which are commonly the consequences of the education it has received, and the causes of its eternal happiness or misery." Having held such discourses with his friends, he kept silent for some time, and then drank off the whole of the poisonous draught, which had been prepared for him, with amazing tranquility and an inexpressible

serenity of aspect, as one who was about to exchange a short and wretched life for a blessed and eternal existence.

The American Indians believe that beyond the most distant mountains of their country there is a wide river; beyond that river a great country; on the other side of that country, a world of water; in that water are a thousand islands full of trees and streams of water; and that a thousand buffaloes and ten thousand deer graze on the hills or ruminate in the valleys. When they die they are persuaded that the Great Spirit will conduct them to this abode of souls.

Thus it appears that not only the philosophers of antiquity have recognized in various ways the immortality of the soul, but even the most savage tribes fortify their minds in the prospect of death with a hope of a happiness commensurate to their desires in the regions beyond the grave.

> "Hope springs eternal in the human breast;
> Man never *is* but always *to be* blest,
> The soul uneasy and confined from home,
> Rests and expatiates in a life to come."

Is it not, therefore, with the highest reason that the Christian, with all his superior intelligence, should cultivate that firm faith and hope which reposes itself upon the reality of that future existence which God in his wisdom, power, and goodness, hath appointed for mankind, and should live such a life of holiness and godliness as will ensure him a place among the blissful redeemed in the great hereafter?

While it must be confessed that these creeds of the ancient nations concerning a future state were in the main ideal elaborations from the imaginations of their authors, it must still be acknowledged that they answered an important purpose; for while by them people were incited and encouraged to live a godly life in hopes that thereby they would attain to a blissful immortality in the future, some were deterred from living the ungodly life which they otherwise would live, from the apprehension that they would in their future state of existence be subjected to punishment and misery for their sins. The doctrine of a future state of rewards and punishments among Christians, or in other words the doctrine concerning Heaven and Hell, produced, until of late, a like effect; but it is very plain that in our own age people in general are not very much influenced, one way or the other, by thoughts concerning a future state, their belief in the existence of such a state at all being, as explained before, rather a tacit acquiescence in the long-established doctrine than a

real and actual belief that the thing is as the doctrine maintained it to be. It is much to be desired that people would cultivate the simple and unwavering faith of the early Christians in a future state of rewards, yea, and of punishments, of happiness and of misery for the good and the evil. The New Testament teaches that there is nothing impossible with God. Again, the question is asked: Why should it be thought a thing incredible that God should raise the dead? And thus what valid reason have we for not believing, that in some way unknown to us now, God will effect that we shall live intelligently and happily in the future? There is no valid reason that we should not cultivate such a belief; but there is the strongest reason, from a consideration of the omnipresence and omniscience of Deity that it may thus be with us. The Deity is everywhere present in essence, intelligence, and power. They who live a godly life experience his presence and his goodness everywhere and variously. The spiritual experience of one godly person may not be exactly the same as that of any other, although there is much in the experience of the godly that is, in general, much alike. Godly men experience God's presence in the peace of mind, the contentment of spirit, the happiness and the heavenly aspirations of soul which they have; for though they are contented with their lot and condition in the world, however humble it may be, they are not pleased with the follies and fashions, the vanities and wicked ways of the world, and continually aspire after the knowledge of heavenly things and after perfection in godliness. As for me I experience God's intelligent presence everywhere and in everything. He speaks to me in audible tones from the winds and from the waves; and from the depths of my own heart, and in every object that exists within my observation, I experience his presence and intelligence. If one ascends up to heaven he is there; if one descends into hell, behold, he is there; if one take the wings of the morning and go to the uttermost parts of the sea, or if one descends to the rocky caverns of the depths of the ocean; if one go into the wilderness or to the trackless forest far away from human habitations, even there he is present; and so he is present in the grave, and out of his presence one cannot be. He is not only omnipresent essentially but he is omnipresent intelligently and certainly this argues immortality in some way for us his creatures. If it doth not yet appear what we shall be, is there not still good reason to hope that we, I mean now our rational intelligences, will exist intelligently in the future? And if this our reasonable, religious, and holy hope is well grounded, as it appears to be, then what a glorious and blessed future may the good picture for themselves. If we live in some way in the future all

who have preceded us are now living in some way, and thus what a glorious future can we picture to ourselves of the good and holy of every preceding age now enjoying the highest felicity in the mansions which had been for them prepared, and into which they were received by their Heavenly Father on their departure from this earthly scene of their existence. There they are forever with the Lord. Both the Old Testament and the New Testament saints are there and those who have, in any age, lived lives of self-denial and godliness, who have lived and labored or suffered for the cause of truth and righteousness. There are the holy men and martyrs of the true Christian faith who find exquisite enjoyment in their associations with the good and holy of every religion and age and nation; and there are those, both male and female, who have lived lives of philanthropy and charity, men and women who have travelled from land to land, from city to city, from house to house, and from one abode of misery and wretchedness to another, in alleviating human suffering, in binding up the broken-hearted, and in comforting those that mourned, in administering comfort and religious instruction to the prisoner in his cell and to the invalid upon his bed of languishing, and in giving the support and the necessaries of life to the indigent and the needy. There are all those of every age and country who have lived lives of active godliness, of philanthropy, and of exemplariness among mankind. There they all with united heart and voice join in the ineffably delightful harmonies and symphonies of the Redeemed.

What a limited scene does this world, with all its glories, exhibit when put in comparison with the extent and the splendors of that Empire which stretches out into immensity, and shall endure for ever! And is it reasonable to suppose or to hope that man in any sense shall be transported to other regions of the infinite universe, to mingle with the inhabitants of other worlds and to exist throughout an endless duration? If so, what a glorious futurity we may picture for ourselves in our endless transmigrations from world to world, from star to star, and from planet to planet, from one scene of existence to another, continually enjoying the happy and delightful association of the glorified celestial inhabitants, and endlessly with the blissful redeemed praising and glorifying God the Creator of all! What a principle does the human mind appear when we consider it as qualified to prosecute so many varied trains of thought, to engage in investigations so sublime, and to attain to such a high degree of moral perfection even in its present state! And how may we contemplate it in its future state as expatiating at large through the unlimited dominions of the Almighty, while eternal ages are

rolling on! How important ought everything to be considered which is connected with the scene of our eternal destination! If the truth of our eternal, and in some way intelligent existence be admitted, it is a subject so profoundly interesting and may be connected with so many awful or glorious consequences, that men must be dead to every noble or refined feeling or idea if they are altogether indifferent concerning it. Yet how often do we find in the conduct of the various classes of mankind the merest trifles set in competition with the scenes of happiness or misery that lie beyond the grave. The low and grovelling pleasures derived from hunting and horse-racing, from balls, masquerades, social parties and theatrical amusements: the acquisition of a few paltry dollars, the rattling of dice, the shuffling of cards or other low amusements will absorb the minds of thousands who profess to be rational beings, while they refuse to spend one hour seriously in reflecting on the fate of their immortal spirits, when they shall have departed this earthly scene. Nay, such is the indifference and even antipathy with which this subject is treated by certain classes of society that it is considered as unfashionable, and, in certain cases would be looked upon as entirely out of place to introduce in conversation a sentiment or reflection upon the eternal destiny of man. "The carelessness," says an energetic French writer, "which they betray in a matter which involves their existence, their eternity, their all, awakes my indignation rather than my pity. It is astonishing. It is horrifying. It is monstrous. I speak not this from the pious zeal of a blind devotion. On the contrary, I affirm that self-love, that self-interest, that the simplest light of reason should inspire these sentiments; and, in fact, for this we need but the perceptions of ordinary men. It requires but little elevation of soul to discover that here there is no substantial delight; that our pleasures are but vanity; that the ills of life are innumerable; and that after all death, which threatens us every moment, must in a few years, perhaps in a few days, place us in the eternal condition of happiness, or misery, or nothingness."

Is it not, therefore, the imperative duty of every human being who makes any pretensions to prudence or rationality to endeavor to have their mind impressed with a conviction of the reality of their future existence; to consider its importance; and to contemplate in the light of reason and revelation the sublime and solemn scenes which it displays. While doubts remain in the mind concerning this subject, or while the mind is in an unsettled state in relation to it, one should explore every avenue where light and information may be obtained, should study with deep attention and humility the

revelations contained in the Scriptures of truth, and with earnest prayer to God for light and direction. And if such inquiries be pursued with a devotional and contrite spirit, with perseverance and a strong desire to acquire a knowledge of the truth concerning this important subject, the doubts and difficulties which have formerly occupied the mind will gradually vanish as the shades of night before the rising sun, and the mind will rest satisfied with its intelligent decisions concerning it. "If thou criest after knowledge, and liftest up thy voice for understanding; if thou seekest her as silver, and searchest for her as for hid treasures,—then shalt thou understand the fear of the Lord, and find the knowledge of God. For the Lord giveth wisdom, out of his mouth cometh knowledge and understanding. In all thy ways acknowledge him and he shall direct thy paths. Then shall thy light break forth in obscurity, and thy darkness shall be as the noon-day." In short, if men are thoroughly satisfied that they will exist in some sense intelligently in the future state, they should cultivate during life those heavenly dispositions and virtues, and prosecute that course of action which will prepare them for the enjoyment of the heavenly world. For we are assured that without holiness, no man can see the Lord, and that no unholy or unrighteous person, and no idolator can enter the gates of the New Jerusalem, or inherit the kingdom of God; and that, therefore, such shall have to spend their eternal existence in the place or state for which their course and manner of life has prepared them.

It appears that although the Creator in the general course of his providence has connected happiness with the observance of his laws, and misery with the violation of them, in order to display the rectitude of his character, and his hatred of moral evil; yet he has at the same time in numerous instances permitted vice to triumph and virtue to be persecuted and oppressed, to convince us, it may be, that his government of human beings is not bounded by the limits of the human life, but extends into the eternal world where the system of his moral administration will be completed, his wisdom and rectitude justified, and the mysterious ways of his providence completely made to appear.

The difference between virtue and vice, between right and wrong, is founded upon the nature of things, and is perceptible by every intelligent agent whose moral feelings are not blunted by vicious indulgences. Were a man to assert that there is no difference between truth and falsehood, justice and injustice, love and hatred, godliness and ungodliness; that it is equally the same, whether we be faithful to a friend, or betray him to his enemies, whether ser-

vants act with fidelity to their employers, or rob them of their property, whether rulers oppress those whom they govern, or promote their interests and welfare, and whether parents care for their children with tenderness, or treat them with cruelty, or destroy their lives in their infancy, he would at once be denounced as a raving maniac and be banished from society. The difference between such actions is eternal and immutable, and every moral agent is endowed with a faculty which enables him to perceive that virtue and vice sooner or later ensure their own reward. We can choose to perform the one class of actions and to refrain from the other; or we can comply with the voice of conscience, which deters us from the one and incites us to the other, or we can resist its dictates and we can judge whether our actions deserve reward or punishment. Now if we are inbued by our Creator with such moral perceptions and capacities as enable us to at once distinguish between right and wrong, does it appear reasonable to suppose that it is equally indifferent to him whether we obey or disobey these moral laws which he has implanted in us? Can we ever suppose that the governor of the universe is an unconcerned spectator of the good or evil actions which happen throughout his dominions? Or that he has left man, unrecognized or with impunity, to act according to his inclinations, whether these be right or wrong? If such suppositions are inadmissible, then it follows that man is responsible for his actions, and that it must be an essential part of the Divine government to bring every action into judgment, and to reward or punish his rational creatures according to their works. And if it may happen, as in point of fact to our observation and judgment it occasionally does, that such retributions are not fully awarded in the present state, nor a visible distinction always made between the righteous and the violators of God's law, is it not necessary for us with our present knowledge to admit the conclusion that a full and equitable distribution of rewards and punishments is reserved to a future world, where a visible distinction will be made, and all intelligent existences clearly discern between those that served God and those that served him not? *

There is no ground for believing that throughout all the worlds that exist in the immensity of space *a single atom* has ever yet been or ever will be annihilated. No instance has yet occurred within the observation of our assisted or unassisted sight of any system or portion of matter, either in the earth or the heavens, having been

* A careful perusal of Butler's Analogy, especially its First Part, may assist to a more definite belief of the future existence.

reduced to annihilation. Changes are indeed unceasingly taking place in countless variety throughout every department of nature.

And if amidst the perpetual changes, transformations, and revolutions, that are going on throughout universal nature in all its departments no particle of matter is ever lost, or reduced to annihilation, is it not in the highest degree probable that the thinking principle in man will not be destroyed by the change which takes place at the moment of his dissolution? Even although its consciousness of existence were to be suspended for thousands of years, its Creator can afterwards invest it with a new organical frame suited to the expansive sphere of action to which it is destined, and the intervening period of its repose may be made to appear no longer than the lapse of a few moments. In short, if the material universe has existed hitherto and will continue to exist, so that not a single atom or element now in existence has at any time, or shall at any time be annihilated, is it reasonable to suppose that the thinking principle in man, whatever may be its nature and substance (for there have been many discussions, childlike indeed, as to the materiality or the immateriality of the soul, or the rational faculty in man), and however varied the transformations through which it may pass, shall ever be annihilated? If the Creator is both able and willing to perpetuate the existence of the rational spirit through an endless duration, and if his wisdom, benevolence, justice, and rectitude require that this object should be accomplished, it is plain that all difficulties arising from its nature or the mode of its subsistence must at once vanish, and that the arguments in favor of its future existence are equally conclusive whether we consider the rational principle as a pure, immaterial, or so-called simple substance; or only a peculiar modification of matter which is so-called a compound of different elements. Moreover, it does not appear that the Creator is under any necessity to annihilate the rational principle for want of power to support its faculties, for want of objects on which to exercise them, or for want of space to contain the innumerable intelligences, visible or invisible, that are incessantly emerging into existence; for the range of immensity is the theatre of his omnipotence; and that creative energy which brings these innumerable creatures into existence will also afford places for their habitations, and produce objects for them on which to employ their faculties while the eternal ages roll on.

From all that I have said it appears that the eternal existence, in some way, of the intelligent principle in man is highly reasonable and probable. And, if so, should it not be with us an object of the firmest faith and hope?

The writers of the Scriptures, especially of the New Testament,

firmly inculcate *faith* in the existence of the future life. "Faith," says Paul in his epistle to the Hebrews, "is the confident expectation of things hoped for and the conviction of things not seen." It implies a trustful confidence in the existence of a future state, and of the rewards of the godly in the life to come; for, says the apostle with respect to Abraham, "he looked for a city which had foundations, whose builder and maker is God." With respect to Moses he says that with all his persecutions and afflictions "he endured, as seeing him who is invisible, for he had respect to the recompense of the reward." And with regard to all the other patriarchs whose names stand high on the records of the Old Testament Church he declares that "they confessed that they were strangers and pilgrims on the earth," that they "declare plainly that they sought a better country, that is, an heavenly, and that those who "were tortured" to cause them to renounce their faith endured their sufferings with invincible fortitude "not accepting deliverance" when it was offered them, "that they might obtain a better resurrection."

Paul when looking forward to the dissolution of his own frame, declares in his own name and in the name of all Christians that "our light affliction, which is but for a moment, worketh for us a far more exceeding and eternal weight of glory; while we look not at the things which are seen, but at the things which are not seen; for the things which are seen are temporal, but the things which are not seen are eternal. For we know that if our earthly house of this tabernacle were dissolved, we have a building of God, an house not made with hands, eternal in the heavens." While these and many similar passages clearly demonstrate the *faith* of their authors in an eternal world, and the future happiness of the righteous, the Scripture writers are equally explicit in asserting the future misery of the wicked. "The unrighteous shall not inherit the Kingdom of God," but, "shall go away into everlasting punishment." "Rejoice, O young man, in thy youth, and walk in the ways of thy heart, and in the sight of thine eyes, but know thou that for all these things God will bring thee into judgment." "For God shall bring every work into judgment, with every secret thing, whether it be good or whether it be evil." May you all, young and old, male and female, follow that course of holiness and righteousness which will ensure you happiness in the life that now is, and in that which is to come, is our earnest prayer.

THE END.